Squirrel River Wild and Scenic River Suitability Study Final Environmental Impact Statement

Bureau of Land Management

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Final Environmental Impact Statement

Squirrel River Wild and Scenic River Study

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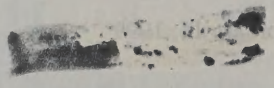
Comments must be received by: [redacted] MAR 1 1999

Abstract

This Environmental Impact Statement assesses the suitability of the Squirrel River in western Alaska for designation as a component of the national wild and scenic rivers system, as required under section 5(a) of the National Wild and Scenic Rivers Act. Four alternatives are presented. Three of the alternatives describe designating portions of the Squirrel River system as a component of the national system. The fourth alternative describes the situation that would ensue if the Squirrel River is not designated. Non-designation is identified as the agency's preferred alternative. Due to remoteness and limited human use in the forseeable future, impacts from the alternatives are described as uncertain and likely to be minimal over the next 15 years. The designation alternatives favor protection of existing river values. Non-designation favors management flexibility and potential for development of roads and a cash economy in the area.



Summary of the Final Environmental Impact Statement

Summary of the process

Scoping

In preparing an environmental impact statement, agencies must go through a *scoping* process. The lead agency must invite the participation of affected groups and individuals, determine the significant issues to be analyzed in depth, identify the range of alternatives to be discussed, and identify other environmental reviews that may have bearing on the issues.

As described in Chapter 5, the Bureau of Land Management made every effort to involve the public—as well as affected agencies and groups—in the scoping process. A *scoping draft environmental impact statement* was our final step in this process. We documented the issues, the alternatives, and the environmental effects we foresaw as a result of the alternatives and asked scoping participants to answer the following questions:

- Are the issues identified in Section 1.5.2 complete and adequate?
- Do the alternatives described in Chapter 2 cover an adequate range of the possible designation and no designation alternatives?
- Have we adequately described the existing situation and the impacts likely to arise from the various alternatives in Chapters 3 and 4?
- Are you aware of any significant information or sources that should be discussed or referenced in the document, but are not?
- Do you have a preference for what should be BLM's *preferred alternative* in the next draft?

With the answers to these questions in hand, we reviewed our analysis of the various alternatives, making revisions as appropriate.

The input we received during the later phases of scoping drew our attention to the uncertainty affecting the people of the Squirrel River area. Village elders spoke at scoping meetings, telling of hard times in the past, and the importance

of the Squirrel as a reservoir for fish and game. They also spoke of loss of state and federal funding for rural Alaska, and the need to maintain local control and flexibility in order to provide for the development of the cash economy while preserving subsistence options. The Kiana City Council and Kiana Traditional Council identified their priorities for the Squirrel River area, and told us that at this time they believe their priorities will be best served if BLM does not recommend designation of the Squirrel River as a component of the national wild and scenic rivers system.

The state of Alaska and the mineral industry also made strong suggestions. They felt that we were underestimating the chilling effect that designation would have on future mineral development in the drainage.

Draft Environmental Impact Statement

Based on our analysis of the potential effects of designation on the human environment, we identified the *agency's preferred alternative* as alternative D, for use in a draft environmental impact statement. Alternative D recommended no designation of the Squirrel River or any of its tributaries, and congress would take no further action. This did not mean the decision had been made—just that at that time, the Bureau believed that the recommendation of no designation was in the best interests of the local residents and the people of the United States in general.

After the publication of the draft environmental impact statement, there were public meetings in Fairbanks, Kiana, and Kotzebue, and written comments were accepted during a formal 60-day public comment period.

Final Environmental Impact Statement

Based on the draft, and the comments on the draft, we prepared this document: a final environmental impact statement. This version will be available for a 30-day comment period, and a record of decision will be prepared. If the decision is not appealed, we will forward the decision, and, if appropriate, a legislative package to implement it, to the Department of the Interior. It is the Department's responsibility to forward the package to the President. It is the President's responsibility to forward it to Congress. The package should reach the Department by late winter, 1999.

Summary of Alternatives

The environmental impact statement team, together with resource managers, developed a range of reasonable alternatives. Three of the alternatives involve designation of at least part of the Squirrel River withdrawn area as a part of the national wild and scenic rivers system:

Alternative A. Designation of the Squirrel River, the West Fork, and the Headwaters Fork as a component of the national wild and scenic rivers system to be managed by BLM as a *scenic river area.*

Alternative B. Designation of the Squirrel River, the West Fork, and the Headwaters Fork as a component of the national wild and scenic rivers system to be managed by BLM as a *wild river area.* The Home Route, North Fork, and the Omar River would be added to the system if the state were to drop significant contiguous blocks of state land selections along these streams in the future.

Alternative C. Designation of the upper portion of the Squirrel River as a component of the national wild and scenic rivers system to be managed by BLM as a *wild river area*; and, designation of the lower portion of the Squirrel River to be managed by BLM as a *scenic river area.*

The final alternative is:

Alternative D. No action, the agency's preferred alternative. BLM would recommend that the Squirrel River is not suitable for inclusion in the national wild and scenic rivers system. Congress would take no action. The Squirrel River withdrawals would expire, which would allow overlying state selections to attach.

Summary of Major Conclusions

The document comes to few definite conclusions. Most of the environmental consequences described are speculative due to the remote nature of the area, the limited potential for development of the cash economy or infrastructure in the near term, and low levels of human use.

For example, there is interest in exploring the mineral potential of the mountains in the northern part of the basin. If the potential is great enough, a mine could

be developed that would add significantly to the cash economy. Wild and scenic designation would add complexity and uncertainty to the development of such a mining prospect. This amounts to an extra cost that would raise the threshold of values required to make development a worthwhile risk. However, our analysis indicates that other factors would be likely to affect the minerals markets. It is difficult to say if designation or non-designation would be an important factor in the decision to develop a mine. In any event, if a mine were developed it would not open until well beyond the "reasonably foreseeable future," which is about 15 years.

Alternatives A, B, and C propose some form of designation, and would have the following identifiable impacts:

- Some state selections would be blocked. The state has over-selected lands along the Squirrel River and its tributaries that are currently not available for state selection due to land withdrawals associated with protective management under Section 5(a) of the National Wild and Scenic Rivers Act. Under the designation alternatives, the withdrawal would shrink with respect to the current situation, but some lands would remain unavailable to the state.

- It would be more difficult for the state or a corporation to develop access corridors across or along the Squirrel River. Rights-of-way would be processed under Title XI of the Alaska National Interest Lands Conservation Act.

- Rural subsistence priority would be maximized in future land management scenarios under the designation alternatives. Because designation minimizes potential state selections by maintaining a land withdrawal, it maximizes federal management in the basin. Under federal law in Alaska, a clear priority and preference is given to rural subsistence use. Under state law there is no such priority. However, both state and federal management guidelines mandate protection of wildlife habitat and populations. The subsistence analysis prepared for this document concludes that neither designation nor non-designation would result in significant impacts to subsistence.

Alternative D, the agency's preferred alternative, would have the following identifiable impacts:

- The state over-selections along the Squirrel River and its tributaries would become valid. The land could then be transferred to the state, and the state's

ability to influence future economic development in the area would be maximized.

- Corporations or other entities that might propose projects such as mining or tourist lodges would feel their exposure to regulatory risks was lower than it might be if the river were part of the national wild and scenic rivers system, where proposals for development must be evaluated to ensure they do not have negative impacts on outstanding river values.
- Rural subsistence priority would be minimized in future land management scenarios under this alternative, unless the provisions of state law are substantially changed. Because non-designation maximizes the lands that might be transferred from federal to state management, and state law does not provide for the same rural subsistence preference found in federal law, subsistence uses of fish and game resources would be more likely to be curtailed under alternative D.

Issues Raised by Agencies and the Public

Issues identified during the public scoping process included the potential of designation or non-designation to impact the following resources:

- The outstandingly remarkable cultural heritage river value.
- The outstandingly remarkable river value for fish.
- The outstandingly remarkable recreation river value.
- The outstandingly remarkable scenic river value.
- Land ownership and land use
- Access and transportation
- Mineral development
- Cultural resources
- Subsistence
- Socio-economic conditions

- Wildlife
- Vegetation
- Water

Issues to be Resolved

There is one basic issue to be resolved in this document—Should the Department of the Interior tell Congress that some portion of the Squirrel River or its tributaries is a worthy addition to the national wild and scenic rivers system?

BLM is obligated to resolve this issue by evaluating several factors specified in the National Wild and Scenic Rivers Act and summarized below. At this point in time, our assessment of the situation and likely impacts from designation lead us to prefer alternative D, which results in no designation, as the answer most likely to provide the greatest public benefit.

Summary of the Factors Considered in Determining if the Squirrel River is a Worthy Addition to the National Wild and Scenic Rivers System

- **The current status of land ownership and use in the area.** The analysis finds the current land status to be a mixture of state, federal, native corporation, and private holdings. The great majority of lands that might become part of a river corridor are federal, but a significant portion of this land has been selected by the state. These state selections would be blocked by designation.

- **The reasonably foreseeable potential uses of the land and water which would be enhanced, foreclosed, or curtailed if the area were included in the national wild and scenic rivers system.** The analysis finds that designation would enhance the maintenance of the existing situation, and has some potential to enhance tourism in the area. Designation would foreclose conveyance of some land to the state, and might curtail economic development tied to mining or road building.

- **Federal, state, local, tribal, public, or other interests in designation or non-designation of the river.** The state, local, and tribal governments have all indicated opposition to designation. Environmental groups have indicated support for designation.

- **The federal agency by which it is proposed the area, should it be added to the system, be administered.** As described in the alternatives, if the Squirrel were designated, it would continue to be managed by BLM.

- **The extent to which it is proposed that such administration, including the costs thereof, be shared by state and local agencies.** As described in the document, if the Squirrel were designated, most of the additional costs of management would be assumed by the federal government.

- **The ability of BLM to manage and/or protect the river as a wild and scenic river area.** There are no mining claims, private lands, or other pre-existing rights that would limit BLM's ability to protect river values if the river were designated. Provisions of the Alaska National Interest Lands Conservation Act would limit BLM's discretion in authorizing transportation corridors through the river area, and would protect existing use of snowmachines, airplanes, and boats.

- **Historical or existing rights which could be adversely affected.** Alternative D, which results in no designation, could possibly have the effect of limiting subsistence use. This is because the priority for rural subsistence use that is found in federal law does not exist under state law. If the river is not designated, it is possible that significant acreage in the basin will eventually come under state management. Because current subsistence use of the area is low, and conflicts limited, the subsistence evaluation in the document found that there would be no significant restriction of subsistence uses and needs under any of the alternatives.

- **The estimated cost to the United States.** Since the river has been under protective management for more than a decade, the costs of management subsequent to designation would change little, if at all. Over the next decade, costs might increase $20,000 to $30,000 per year if the river were designated. This increase in costs would result from additional monitoring and law enforcement effort.

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Chapter 1

Introduction

1.1 Purpose and need

1.1.1 Legislative requirements

The Alaska National Interest Lands Conservation Act of 1980[1], amends the Wild and Scenic Rivers Act of 1968[2] to designate the Squirrel River in western Alaska (see Figure 1.1) for study as a potential addition to the national wild and scenic rivers system. More specifically, this amendment to the Wild and Scenic Rivers Act directs the Secretary of the Interior to "study and submit to the President a report on the suitability or nonsuitability [of the Squirrel River] for addition to the national wild and scenic rivers system." The Wild and Scenic Rivers Act requires the study to document:

> ...the characteristics which do or do not make the area a worthy addition to the system; the current status of land ownership and use in the area; the reasonably foreseeable potential uses of the land and water which would be enhanced, foreclosed, or curtailed if the area were included in the national wild and scenic rivers system; the Federal agency... by which it is proposed the area, should it be added to the system, be administered; the extent to which it is proposed that such administration, including the costs thereof, be shared by state and local agencies; and the estimated cost to the United States...

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[1] ANILCA, P.L. 96-487
[2] WSRA, P.L. 90-542

While the study is under way, lands along the West Fork, the Headwaters Fork, and the Squirrel River itself are managed under the Wild and Scenic Rivers Act to prevent some actions—including state land selections—that might affect the suitability of the river for inclusion in the system. This *protective management* will continue until the completion of the study. If Congress does not act within three years of completion of the study, protective management under the Wild and Scenic Rivers Act will end.

The Squirrel River has been under protective management for over 15 years. BLM's interim objective has been to protect any values that might make the Squirrel River a worthy addition to the national wild and scenic rivers system. Wild river areas are undisturbed and primitive. If roads were built to the river or lodges were built along the bank, the primitive values would be diminished. Therefore, BLM has, in general, managed the area as if it were already designated as a wild river area. Due to the remote nature of the river, and the low levels of human use, this protective management has caused few conflicts.

1.1.2 Responsibility for this document, subsequent reports, and authorizing actions

The Bureau of Land Management's Alaska State Director has the authority to make recommendations on the suitability or non-suitability of streams for inclusion in the national wild and scenic rivers system. This authority has been delegated by the Secretary of the Interior.

State directors generally make such recommendations as a result of the BLM resource management planning process. However, in the case of the Squirrel, and other rivers singled out by Congress for consideration, the Wild and Scenic Rivers Act and the National Environmental Policy Act[3] require a special report and environmental document. In particular, an environmental impact statement, and a record of decision based on it, is required. BLM is the agency preparing the environmental impact statement and thus is the *lead agency*. The record of decision for the environmental impact statement will document the BLM Alaska State Director's decision, which will be a *recommendation* on the suitability or non-suitability of the Squirrel River as a potential addition to the national wild and scenic rivers system.

After the record of decision is completed, the environmental impact statement and record of decision will be sent to the Secretary of Agriculture, the Secretary of

[3]NEPA, 42 U.S.C. 4371

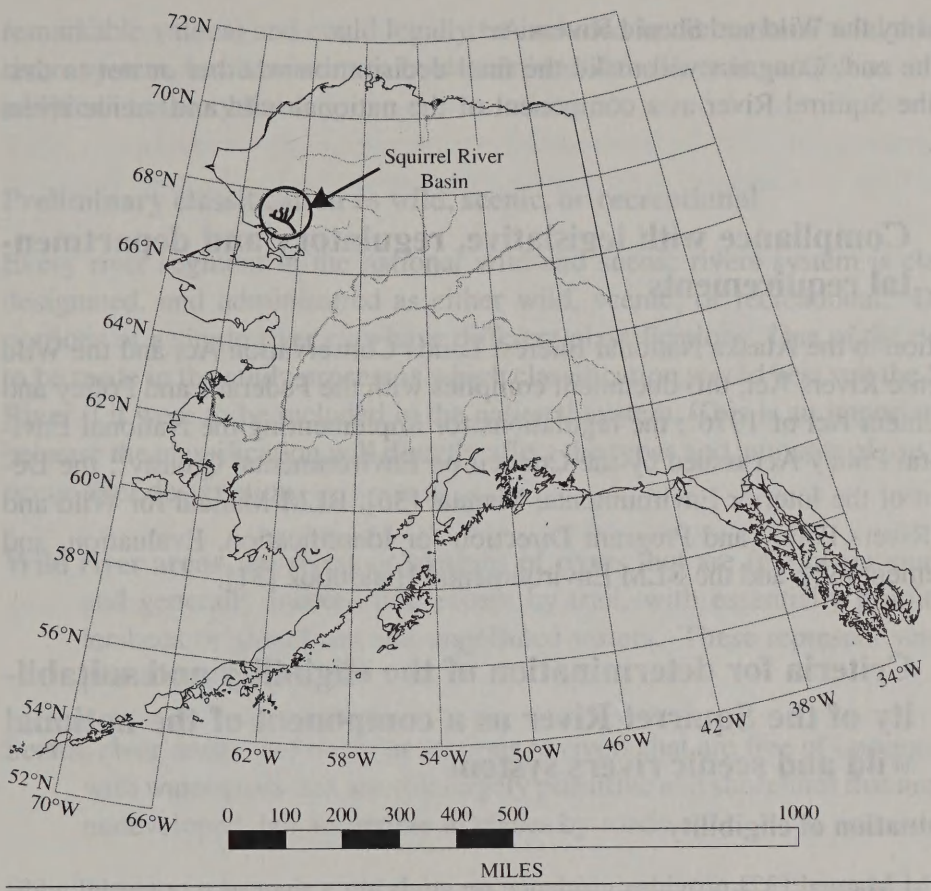

Figure 1.1: Location of the Squirrel River drainage.

the Army, the Chairman of the Federal Power Commission, and the Governor of the state of Alaska. Any recommendations or comments on the proposal furnished by these officials to the Secretary of the Interior within 90 days of the date on which the report is submitted to them, will then be compiled.

BLM and the Department of the Interior will then prepare a package of proposed legislation implementing the recommendations in the record of decision. The proposed legislation would amend the Wild and Scenic Rivers Act to include any suitable segments of the Squirrel River in the national system. After review by the Department of the Interior and other agencies, the record of decision, the compiled comments, the proposed legislative package, and any supporting documents such as maps, will be transmitted to the President, and the President will forward the package to Congress. This transmittal will mark the end of the study

required by the Wild and Scenic Rivers Act.

In the end, Congress will make the final decision on whether or not to designate the Squirrel River as a component of the national wild and scenic rivers system.

1.1.3 Compliance with legislative, regulatory and departmental requirements

In addition to the Alaska National Interest Lands Conservation Act and the Wild and Scenic Rivers Act, this document complies with the Federal Land Policy and Management Act of 1976[4]; the regulations for implementing the National Environmental Policy Act issued by the Council on Environmental Quality[5]; the Department of the Interior Environmental Manual [36], BLM Manual for Wild and Scenic Rivers Policy and Program Direction for Identification, Evaluation, and Management [32]; and the BLM Environmental Handbook [31].

1.1.4 Criteria for determination of the eligibility and suitability of the Squirrel River as a component of the national wild and scenic rivers system

Determination of eligibility

The BLM Manual [32] provides guidance on studying a river as a potential addition to the national wild and scenic rivers system. The first step is to determine whether the river meets the Wild and Scenic Rivers Act criteria for eligibility. To be eligible for inclusion a river must be free of impoundments and have at least one *outstandingly remarkable value* such as scenery, recreational opportunities, fisheries, cultural resources, or other similar values. The Squirrel River is free of impoundments. While preparing this environmental impact statement we re-evaluated the outstandingly remarkable river values identified in the previous studies using a regional approach, as suggested in the manual. The outstandingly remarkable values in the Squirrel River study were identified in relation to the drainages of the Kobuk and Noatak Rivers in northwest Alaska, and include the cultural heritage, fish, recreation, and scenic river values. Therefore, the Squirrel River is *eligible* (because it is free of impoundments and has outstandingly

[4]FLPMA, P.L. 94-579
[5]15 CFR 1500

remarkable values) and could legally be included in the national wild and scenic rivers system, but it remains to be determined if the river is *suitable* as a "worthy addition" to the system.

Preliminary classification as wild, scenic, or recreational

Every river segment in the national wild and scenic rivers system is classified, designated, and administered as either wild, scenic, or recreational. Different portions of a single river may have different classifications. One of the decisions to be made in the study process is which classification would best suit the Squirrel River if it were to be included in the national system. This is an important point, because the classification will directly affect the types and amounts of use that can occur after designation.

Wild river areas are rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with essentially primitive watersheds or shorelines and unpolluted waters. These represent vestiges of primitive America.

Scenic river areas are rivers or sections of rivers that are free of impoundments, with watersheds that are still largely primitive and shorelines that are largely undeveloped, but accessible in places by roads.

Recreational river areas are rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and may have undergone some impoundment or diversion in the past.

The role of this document in evaluating suitability or non-suitability and future management of the Squirrel River

The next step in the process evaluates the river's suitability for inclusion in the wild and scenic river system. A river may be eligible for inclusion because it is free-flowing and has outstandingly remarkable values, but may not be suitable due to land ownership patterns or other considerations, such as issues involving land management priorities, environmental impacts, and the interests of local residents.

The assessment is documented by an environmental impact statement, which analyzes the impacts of designation on the human environment. The process is designed to give BLM a comprehensive framework to gather public input and assess

the impacts of the alternatives. A *record of decision*, based on the environmental impact statement, will document BLM's final recommendation on suitability or non-suitability of the Squirrel River as a component of the national wild and scenic rivers system. The decision will be part of the report submitted to the President and Congress, and will provide them with detailed background on the agency recommendation.

Preparation of an environmental impact statement follows six basic steps, listed here:

1. Determine the scope of the issues, alternatives, and impacts to be considered in the environmental impact statement.

2. Conduct the environmental analysis of the alternatives and prepare the draft environmental impact statement.

3. Issue the draft environmental impact statement for public review and comment.

4. Analyze the public comments and prepare the final environmental impact statement.

5. Issue the final environmental impact statement.

6. Record the decision.

At this time, we have completed the first five steps. This document has been prepared for public review and comment. It builds on a 1976 study of the Squirrel River by the Bureau of Outdoor Recreation and an incomplete study and draft environmental impact statement begun by the National Park Service in 1982. The Bureau of Outdoor Recreation study determined the river was eligible, and the National Park Service study indicated the river met the criteria for both eligibility and suitability as a component of the system based on outstanding recreation, fish and scenic values. In 1993 BLM assumed responsibility for the environmental impact statement process. We went back to the scoping level to obtain maximum public input and make sure that information gathered between 1982 and the present would be included in the analysis. We issued a draft environmental impact statement in February, 1998, and asked for public comments. Public meetings on the draft were held in Kiana, Kotzebue, and Fairbanks.

If Congress decides to include the Squirrel River in the national wild and scenic rivers system, BLM will prepare a river management plan for the designated corridor. The public would participate in identifying specific actions that BLM would take to ensure the river would continue to meet the standards of the Wild and Scenic Rivers Act and to protect the values for which the river was designated.

1.2 General location: The Squirrel River study area

The Squirrel River rises in the southern portion of the Baird Mountains in northwestern Alaska and flows south and then southeast 72 miles to the Kobuk River at Kiana, Alaska. Kiana is approximately 60 air miles east of Kotzebue (see figure 1.2). In addition to the main stem of the Squirrel, there are five main tributaries within the study area (see figure 1.3). Those tributaries are the West Fork, the Headwaters Fork, the Home Route, the North Fork, and the Omar.

When the river was originally placed under protective management, all sections within one mile of certain segments of the stream were withdrawn from appropriation under the land laws and the Alaska Statehood Act. The environmental impact statement study area includes the West Fork and the Headwaters Fork, which were included in this original withdrawal. Lands along the Home Route, the North Fork, and the Omar River, above their confluences with the main stem, are also included in the study area; however, all of these lands are not presently withdrawn. Most of the land in the study area is currently under BLM administration. Figure 1.4 shows the pattern of land ownership and state and Native land selections in the area.

Twelve miles of the lower river below the withdrawal flow through lands managed by the NANA [6] Regional Corporation. Three townships within the Wild and Scenic Rivers Act withdrawal have also been selected by NANA. Since this selection takes precedence over the withdrawal, NANA has requested that these townships not be included in the study, and we have not included these townships in the alternatives for designation that were developed during the scoping process. However, these townships may not be conveyed due to over-selection. It is also possible these townships may be conveyed, and, in any case, NANA owns adjacent lands that could be impacted by a recommendation for designation. We have

[6]While the name, NANA, appears to be an acronym, it is the official name of the regional Native corporation in the area.

tried to involve NANA and local residents in the study process to the maximum extent possible.

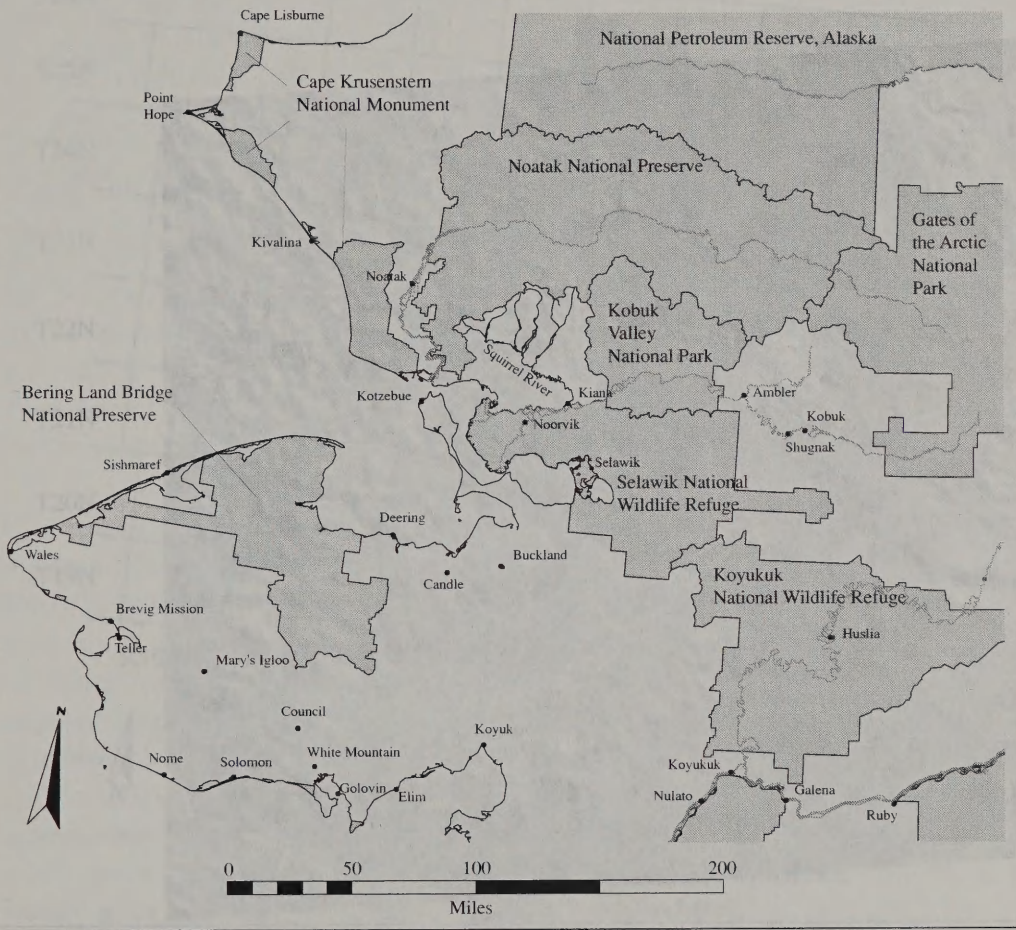

Figure 1.2: The Squirrel River, nearby communities, and conservation system units.

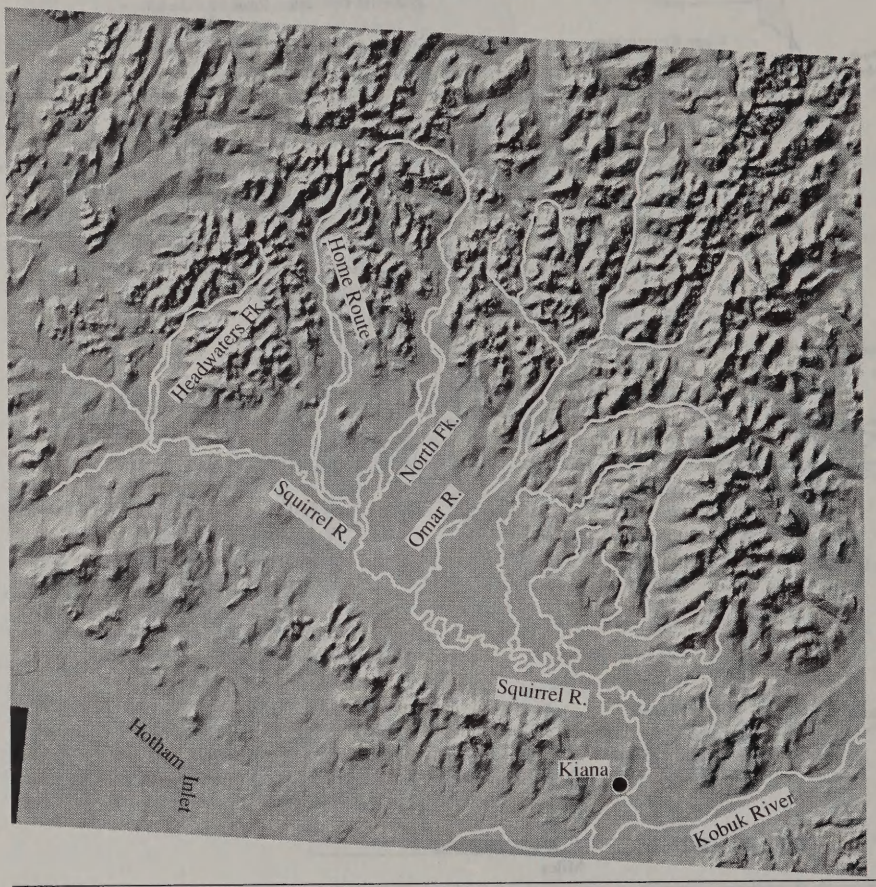

Figure 1.3: The Squirrel River, its tributaries, and surrounding terrain.

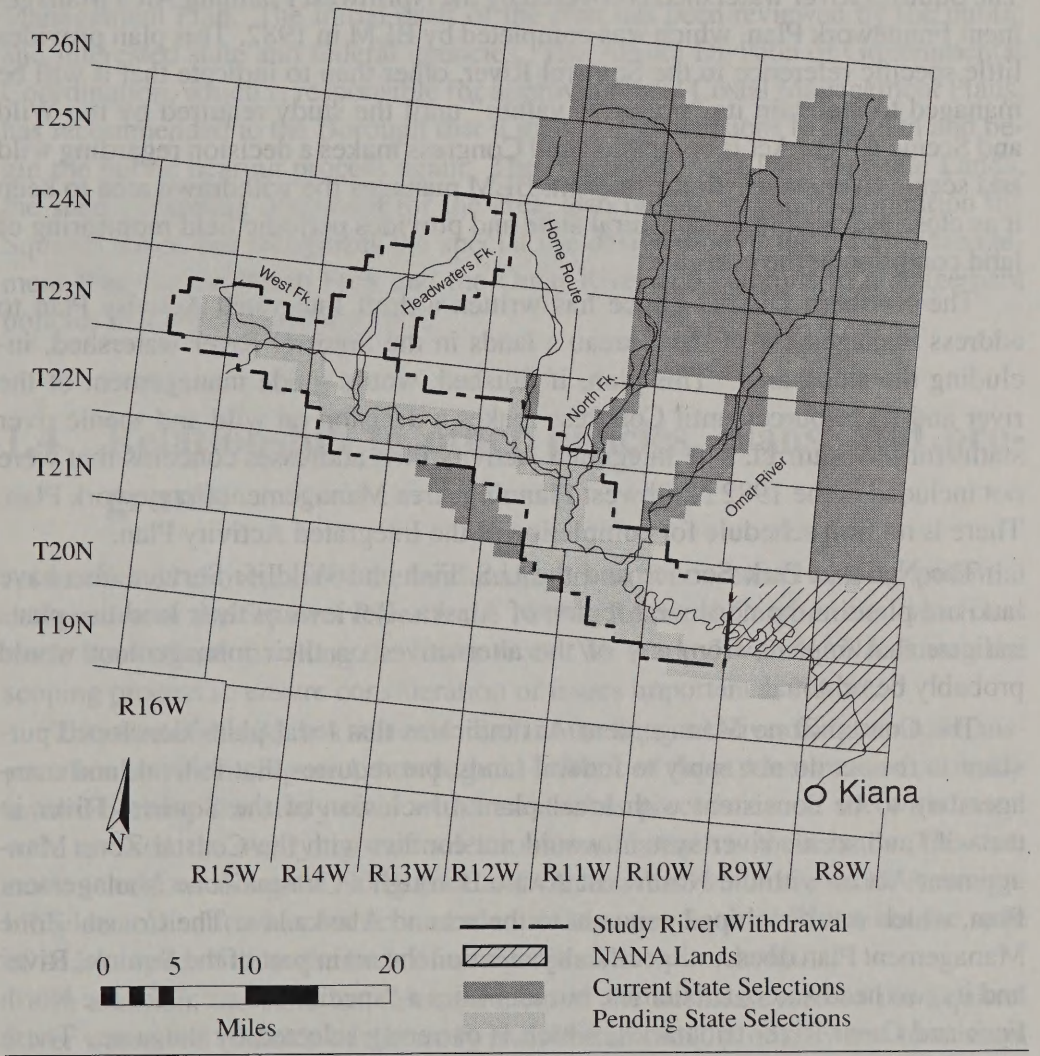

Figure 1.4: Land status in the Squirrel River drainage.

1.3 Relationship to BLM policies, plans, and programs

The Squirrel River watershed is covered by the Northwest Planning Area Management Framework Plan, which was completed by BLM in 1982. This plan provides little specific reference to the Squirrel River, other than to indicate that it will be managed to maintain its "primitive values" until the study required by the Wild and Scenic Rivers Act is completed and Congress makes a decision regarding wild and scenic river status. In the interim, BLM manages the withdrawn area to keep it as close as possible to its natural state and provides periodic field monitoring of land condition in the corridor.

The Northern District Office has written a draft Integrated Activity Plan to address management of the Bureau's lands in the Squirrel River watershed, including the study area. This plan, if finished, would guide management of the river and its resources until Congress makes a decision on wild and scenic river status for the Squirrel. The Integrated Activity Plan addresses concerns that were not included in the 1982 Northwest Planning Area Management Framework Plan. There is no firm schedule for completion of the Integrated Activity Plan.

The National Park Service and the U.S. Fish and Wildlife Service also have land use plans in the northwest region of Alaska. Reviews of their land use plans indicate that impacts from any of the alternatives on their management would probably be minimal.

The Coastal Zone Management Act indicates that local plans developed pursuant to the act do not apply to federal lands, but requires that federal land managers try to be consistent with local plans. Inclusion of the Squirrel River in the wild and scenic river system would not conflict with the Coastal Zone Management Act or with the Northwest Arctic Borough's Coastal Zone Management Plan, which was developed pursuant to the act and Alaska law. The Coastal Zone Management Plan does not specifically mention the main part of the Squirrel River and its two headwaters tributaries, but identifies a "special use area" for the North Fork and Omar River tributaries, which is currently selected by the state. These lands are identified in the Coastal Zone Management Plan as state selections for possible community purpose land grants by the Borough.

According to the Coastal Zone Management Plan, special use areas have two purposes: to guide uses and activities on those lands and waters that may need special protection for biological, subsistence, and cultural resources; and, to guide uses and activities on lands and waters that have been, or may be, important for

major resource and transportation development with the potential for regional impacts. This includes energy facilities, mining, timber, land disposal, and transportation.

The Northwest Arctic Borough is in the process of updating its Coastal Zone Management Plan. The initial draft of the plan has been reviewed by the public and interested state and federal agencies. The Alaska Division of Governmental Coordination, which is responsible for approving local Costal Management Plans, has recommended to the Borough that it make major revisions to the plan and begin the public hearing process again. The Northwest Area Plan for State Lands, the state's planning document for the area, also fails to specifically mention the Squirrel River, but recognizes the special use designation of the Costal Management Plan for the North Fork and the Omar River and commits to management policies that are consistent with it.

1.4 Relationship to other policies, plans, and programs

As mentioned above, one of the land managers most concerned with the potential designation of the Squirrel River is the NANA Regional Corporation, which has made land selections along the lower river. We worked with NANA during the scoping process to ensure consideration of issues important to NANA.

The state of Alaska has selected much of the Squirrel River for potential transportation corridors (Figure 1.4 on page 11). Some of these selections are currently invalid because the study river withdrawal takes precedence. If the withdrawal were revoked, the overlying state selections would attach to these lands. The state made selections along the North Fork and Omar rivers, which are valid. A navigability determination has not been made for the entire Squirrel River; but the state of Alaska holds title to the beds of navigable streams in Alaska.

In addition, the state has selected most of the northeast area of the Squirrel River watershed (outside of the study river withdrawal), primarily due to mineral potential. As a result, during the scoping process we worked closely with the Alaska Departments of Transportation and Natural Resources through the Division of Governmental Coordination, which is the state's official coordinating body for formal review. Regardless of the congressional decision on whether to include the Squirrel River in the national wild and scenic rivers system, management of the issues addressed in this environmental impact statement for management of

lands in the Squirrel River watershed will continue to require close cooperation between BLM, the state of Alaska, NANA, the Northwest Arctic Borough, and the local residents.

1.5 The scoping process

1.5.1 Scoping summary

After reviewing the 1985 National Park Service draft environmental impact statement and available background material in October and November 1993, we continued work on the suitability study and environmental impact statement with in-house discussions of possible issues and alternatives. Identification of issues continued through the public scoping process after publication of a Notice of Intent in the Federal Register on Dec. 31, 1993. A brochure was mailed in February 1994 to inform people about the scoping effort for the resumed process. This was to help avoid confusion with the unfinished 1985 National Park Service document. Comments were collected at public scoping meetings held in Kiana, Kotzebue, Anchorage and Fairbanks in April 1994. Written comments, informal meetings, and telephone conversations with agencies, organizations, and individuals throughout 1994 also helped formulate the issues and subsequent alternatives to be addressed. BLM environmental impact statement team meetings, held in late 1994, helped consolidate the issues and alternatives previously identified. Notes from these meetings, and all comments received, are on file with the BLM Northern District office in Fairbanks, Alaska.

Little progress was made on the environmental impact statement project in 1995 and 1996 due to the internal reorganization of BLM's Northern District Office. In December, 1996, a preliminary draft environmental impact statement was prepared, which we called the *Scoping Draft*. This was subject to review within BLM and the Department of the Interior. It was also used as a talking point in discussions with individuals and groups involved in the scoping process.

During the scoping process we documented the issues, the alternatives, and the environmental effects we foresaw as a result of the alternatives and asked scoping participants to answer the following questions:

- Are the issues identified in Section 1.5.2 complete and adequate?
- Do the alternatives described in Chapter 2 cover an adequate range of the possible designation and no designation alternatives?

- Have we adequately described the existing situation and the impacts likely to arise from the various alternatives in Chapters 3 and 4?
- Are you aware of any significant information or sources that should be discussed or referenced in the document, but are not?
- Do you have a preference for what should be BLM's *preferred alternative* in the next draft?

1.5.2 Scoping issues

Issues identified during the public scoping process have been consolidated into the following list to guide the Squirrel River environmental impact statement analysis. As a result of the scoping process, the environmental impact statement will be primarily concerned with impacts on:

- The outstandingly remarkable cultural heritage river value.
- The outstandingly remarkable river value for fish.
- The outstandingly remarkable recreation river value.
- The outstandingly remarkable scenic river value.
- Land ownership and land use
- Access and transportation
- Mineral development
- Cultural resources
- Subsistence
- Socio-economic conditions
- Wildlife
- Vegetation
- Water

1.5.3 Wild and scenic river designation alternatives

The environmental impact statement team, together with resource managers, incorporated these major concerns into a range of reasonable alternatives. Following review by many people representing various agencies and groups, we began the analysis on four alternatives. Three of the alternatives involve designation of at least part of the Squirrel River withdrawn area as a component of the national wild and scenic rivers system:

Alternative A. Designation of the Squirrel River, the West Fork, and the Headwaters Fork as a component of the national wild and scenic rivers system to be managed by BLM as a *scenic river area.*

Alternative B. Designation of the Squirrel River, the West Fork, and the Home Route as a component of the national wild and scenic rivers system to be managed by BLM as a *wild river area.* The Home Route, North Fork, and the Omar River would be added to the system if the state were to drop significant contiguous blocks of state land selections along these streams in the future.

Alternative C. Designation of the upper portion of the Squirrel River as a component of the national wild and scenic rivers system to be managed by BLM as a *wild river area*; and, designation of the lower portion of the Squirrel River to be managed by BLM as a *scenic river area.*

The final alternative is:

Alternative D. No Action, agency's preferred alternative. This alternative would recommend no designation of the Squirrel River or any part of its tributaries as a component of the national wild and scenic rivers system. Congress would take no further action.

1.6 The draft environmental impact statement

Subsequent to the scoping process, we issued a draft environmental impact statement. This was available to the public in February, 1998, and was the first opportunity for the public to comment on the agency's preferred alternative. Public meetings were held in Kiana, Kotzebue, and Fairbanks during the formal comment period, which ended April 28, 1998. The meeting in Kiana was attended

by several dozen individuals. The meeting in Kotzebue only had one visitor. The meeting in Fairbanks had approximately 6 visitors, most of whom simply picked up a copy of the document. We are uncertain of actual attendance because we consider it likely that not everyone who came signed the guest register.

Approximately 200 copies of the draft were sent to individuals, groups, and organizations on our Squirrel River mailing list. Approximately 100 other copies were picked up in person, at public meetings, or the Fairbanks public room. Approximately 100 more were sent to in response to particular requests, mostly from government.

Each copy of the draft we distributed included a pre-addressed comment page to make it easy for people to provide comments on the document. Five of these pages were returned to us with comments.

Chapter 2

Description of alternatives

2.1 Introduction

This environmental impact statement addresses four alternatives identified on the basis of the concerns and issues raised during the scoping process, as described in Chapter 1. Chapter 2 describes the alternatives in more detail and develops lists of management actions that define the meaning of each alternative. The agency's preferred alternative is identified. Management actions with effects on land status are summarized in Table 2.1 on page 22. Other management actions are summarized in Table 2.2 on page 30.

Alternative A in this document provides for a scenic designation of the river within the the Alaska National Interest Lands Conservation Act withdrawal. During the scoping process, the state and some local people told BLM that one of their serious concerns with designating the Squirrel was the possibility of limitations being placed on road construction in the future. Some participants indicated support for an alternative to preserve the *status quo*, so alternative A was formulated in response to this concern. Since scenic segments can be accessible by road, Alternative A need not place severe limitations on road construction, while providing limits to other developments in the upper river that could impact traditional land uses in that area.

There are similarities between alternatives in the incomplete 1985 National Park Service draft environmental impact statement and the current document. Three alternatives in the incomplete 1985 National Park Service draft environmental impact statement were variations of river mileage in the drainage under a wild designation. The influence of this is seen in our current Alternative C, which

combines wild designation in the upper reaches with scenic designation in the lower section.

A fourth alternative in the 1985 National Park Service environmental impact statement, which included some tributaries in wild status, was the most protective. BLM's Alternative B is similar in scope. The Home Route, North Fork, and the Omar River could be designated as wild river areas under Alternative B, provided the state drops land selections along these tributaries.

The state selected acreage along the North Fork and Omar River since work on the National Park Service environmental impact statement stopped; so the state has an existing right which affects this alternative. State-selected acreage along the Home Route, North Fork and Omar River will be conveyed out of federal ownership, unless the state drops their selections.

Since the state has selected more land than they will eventually receive title to, they may choose to drop some selections in the Squirrel River drainage. In that case Alternative B would result in additional river segments being added to the national wild and scenic rivers system. On the other hand, the state may choose to prioritize these lands and accept title to all of their valid selections in the drainage. If this happens, the Home Route, North Fork, and the Omar River would not be added to the system.

2.1.1 Alternatives considered but eliminated from detailed analysis

The possibility of continuing existing protective management was identified at an early stage of the public scoping process because there was some local interest in maintaining the management policies that have been in place since the passage of the Alaska National Interest Lands Conservation Act. This alternative was eliminated from further analysis because the the Alaska National Interest Lands Conservation Act *requires* us to study the river and make a recommendation to Congress. Once we make *any* recommendation to Congress—either for or against designation—existing protective management *will* end in three years or less. Even if Congress takes no action on our recommendation, the Squirrel River protective management program, including the withdrawals pursuant to the Wild and Scenic Rivers Act, will end after three years. Therefore, the existing protective management program is congressionally mandated as an *interim* program, and is not a viable long-term management option.

2.2 The alternatives

Introduction

These sections describe the resource management actions planned or projected to occur in the river corridor under each alternative. They are professional estimates based on current conditions and trends. In this document, "reasonably foreseeable" generally applies to actions likely to take place within the next 15 years. However, we do discuss scenarios for access and mineral development more than 15 years in the future.

If the river were designated (if Alternative A, B, or C were followed), the Wild and Scenic Rivers Act would require preparation of a river management plan to provide a detailed management program. During the development of such a plan, relatively detailed approaches to issues are developed. These go beyond the fairly general actions described below.

Management actions for the following alternatives are summarized in Table 2.2.

- ***Alternative A.*** Designation of the Squirrel River as a component of the national wild and scenic rivers system, to be managed by BLM as a scenic river area.

- ***Alternative B.*** Designation of the Squirrel River and its tributaries as a component of the national wild and scenic rivers system, to be managed by BLM as a wild river area.

- ***Alternative C.*** Designation of the upper portion of the Squirrel River as a component of the national wild and scenic rivers system, to be managed by BLM as a wild river area; and, designation of the lower portion of the Squirrel River, to be managed by BLM as a scenic river area.

- ***Alternative D, No Action, the agency's preferred alternative.*** Congress would take no action. The Squirrel River would not become part of the national wild and scenic rivers system. Protective management as a study river would end, and the segregative effect of the study river withdrawals would expire.

Alternatives	Miles of designated river	Maximum additional miles possible[a]	Acres in river corridor[b]	Maximum additional acres possible[a]	Acres of State selections that would become valid[c]
A	99.6	0	63,744	0	50,765
B	99.6	138.8	63,744	88,824	50,765
C	99.6	0	63,744	0	50,765
D	0	0	0	0	81,501

[a]The State may drop some selections along the Home Route, North Fork, or the Omar River. This could allow some segments of these streams to be designated without including State lands in the corridor. Under alternative B, if 10 river miles miles or more of State selected river area are dropped in the future, the segments would be added to the designation.

[b]The river corridor is limited to an average of 640 upland acres per mile of designated stream.

[c]This column shows State selections filed for lands within the present study river withdrawal, but which would be outside the river corridor under the various alternatives.

Table 2.1: Summary of designated river miles and corridor acreages under the alternatives.

2.2.1 Identification of the agency's preferred alternative

Subsequent to the scoping process, we reviewed our analysis of the impacts of the alternatives on the human environment documented in the scoping draft. The input received during the later phases of the scoping process drew our attention to the uncertainty affecting the people of the Squirrel River area. Village elders spoke at scoping meetings, telling of hard times in the past and the importance of the Squirrel as a reservoir for fish and game. They also spoke of loss of state and federal funding for rural Alaska, and the need to maintain local control and flexibility in order to provide for the development of the cash economy while preserving subsistence options. The Kiana City Council and Kiana Traditional Council identified their priorities for the Squirrel River area, and told us they believe their priorities will be best served if BLM does not recommend designation of the Squirrel River as a component of the national wild and scenic rivers system. As shown in figure 1.2 on page 9, the Squirrel River basin is largely surrounded by federally managed conservation system units. The people from Kiana are concerned that designation of the Squirrel River as a component of the national wild and scenic rivers system would "lock up" the last large block of land in the area that would be available for economic development activities, such as mining and tourist lodges.

The state of Alaska and the mineral industry also made strong suggestions.

They thought we were underestimating the chilling effect that designation would have on future mineral development in the drainage.

Based on the analysis of the potential effects of designation on the human environment, BLM identified the *agency's preferred alternative* as Alternative D, which results in no designation.

2.2.2 Federal management actions common to all alternatives

Standard procedures that generally apply to BLM-managed public lands

- An analysis of the impacts to subsistence will be conducted for all actions involving federal lands in compliance with Section 810 of the Alaska National Interest Lands Conservation Act.
- Potential impacts to resources from any proposed land-use action would be evaluated through the National Environmental Policy Act process.
- BLM would continue to comply with the requirements of the National Historic Preservation Act for all cultural resources, including traditional lifeway values, that are determined to be eligible for the National Register of Historic Places.
- Proposals for activities requiring authorization would be reviewed by specialists in cultural resources and other fields. In situations where significant surface disturbance was likely, cultural resource field inventory of the potentially affected area would be completed.
- No land-use authorization would be required for *casual use* of the public lands. Casual use is any short-term, non-commercial activity that does not cause appreciable damage or disturbance to public land resources and is not prohibited by closure of the land to such activities.
- The traditional use of snowmachines, motorboats, airplanes, or off-highway vehicles weighing less than 2,000 pounds, as well as non-motorized surface transportation methods, would generally be allowed when they meet the criteria for casual use.
- Occupancy, use, or development of the land, including use of off-highway vehicles weighing more than 2,000 pounds, could be allowed but would require a land-use authorization and must meet management plan guidelines.

Current management activities that would continue

- Fisheries actions would include the following on BLM-managed public lands:

    1. Inventories of baseline fish habitat and populations would be conducted approximately every five years.
    2. Changes in fish habitat and populations would be monitored.
    3. Data collected would be provided to the Alaska Department of Fish and Game.
    4. Recommendations concerning bag limits would be made to the Alaska Department of Fish and Game.
    5. Information would be contributed to publications describing sport fishing opportunities on the Squirrel River.

- Non-commercial recreational activities such as hiking, fishing, hunting and boating, would be allowed on BLM-managed public lands in a manner consistent with protection of the river environment.

- Commercial recreation activities on BLM-managed public lands would require a BLM Special Recreation Permit.

- Harvest limits and seasons for taking certain fish and wildlife populations can be restricted on federally managed public lands, if necessary to ensure the continuation of subsistence uses of such populations. This is in accordance with applicable state and federal laws regarding the harvest of fish and wildlife and the rural preference provided under Title VIII of the Alaska National Interest Lands Conservation Act.

- The area would be managed to protect wildlife habitats and populations for subsistence and recreational use. This would require a fairly low intensity of inventory and monitoring, since the Squirrel River area presently receives a low, slightly increasing, level of recreational and subsistence use. Moose populations are counted at approximately five-year intervals, in cooperation with the Alaska Department of Fish and Game. Where appropriate, BLM assists with monitoring programs led by the Alaska Department of Fish and Game and the National Park Service, respectively, for caribou of the Western Arctic herd and Dall sheep.

- Wildfires in the river corridor would continue to be managed to achieve a varied mosaic of different-aged stands, providing a balance of habitats for different wildlife species and for human values ranging from scenery to moose hunting and berry picking. For most of the area this would mean providing for a natural fire regime where any given vegetation stand naturally burns every 100 to 400 years. Fire suppression management actions are outlined in the Alaska Interagency Fire Management Plan and would be subject to periodic review and public comment.

- Potential impacts from fire management could conflict with recreational use due to decreased air quality, poor visibility and increased aircraft use during fire activity. These impacts would be limited through cooperation with adjacent land managers and through education of the public about the importance of maintaining a natural fire regime.

- Harvest of wood for fuel or house logs would be allowed by permit.

- Any proposal for surface-disturbing development that might impact water quality would activate a monitoring program to determine if such an activity would have a deleterious effect on existing water uses. This monitoring information would then be used to identify measures to maintain compliance with federal and state water quality standards.

Management activities resulting from discontinuation of the current study river withdrawal management practices on federal lands

- Community-grant and general purposes grant selections would become valid and available for conveyance to the state of Alaska under the Alaska Statehood Act, as amended. BLM requires concurrence by the state, until conveyance, prior to making contracts or issuing leases, permits, or rights-of-way on selected lands.

- The lower 12 miles of the Squirrel River corridor remaining in the withdrawal would be conveyed to NANA Regional Corporation to fulfill its entitlement under the Alaska Native Claims Settlement Act.

2.2.3 Management actions common to alternatives for designation under the Wild and Scenic Rivers Act

These actions apply to alternatives A, B, and C:

- New rights-of-way and transportation corridors under Title XI of the Alaska National Interest Lands Conservation Act would be approved if management plan guidelines are met.
- The designated river corridor would continue to be closed to mineral entry, mineral leasing, and mineral material disposal to protect the outstandingly remarkable river values. Public Land Order 5179 would remain in effect.
- Administrative headquarters, limited campground and visitor services facilities, and search and rescue facilities could be established, if needed.
- Eight Native allotments are located within the study area. If any private land is identified for acquisition, it would be obtained on a willing buyer, willing seller basis. The use of condemnation is strictly limited by the Wild and Scenic Rivers Act, and has only been used in recent years in situations with a willing seller and willing buyer who needed to go through a friendly condemnation process to clear title.
- Visitor use statistics would be used to assist management in developing guidelines to better distribute use, and to maintain the quality of subsistence uses and the recreational experience. Visitor use levels would also help BLM determine the appropriate level of law enforcement activities in the area.
- The federal lands within the viewshed outside the designated Squirrel River corridor would be managed to minimize impacts to the outstandingly remarkable river values.
- Construction of dams and diversions, as well as straightening, riprapping, and other modifications of the waterway on federal lands within the scenic river corridor would generally be prohibited. Limited riprapping would be allowed if necessary to provide for roads or other uses provided for in the Alaska National Interest Lands Conservation Act.
- Federal reserved water rights will be established over the designated river section to maintain the outstandingly remarkable river values. BLM would

schedule a monitoring program to quantify the streamflow and apply for water rights with the Alaska Department of Natural Resources under AS 46.15.145 and 11 AAC 93.040.

- A limited water monitoring program would be undertaken to characterize the existing water quality of the Squirrel River Basin. This would include sampling at representative points of the river to identify the natural variability of water quality with streamflow.

2.2.4 Alternative A: Designation of the Squirrel River as a component of the national wild and scenic rivers system, to be managed by BLM as a *scenic river area*

Description

This alternative would recommend that Congress designate as a scenic component of the national wild and scenic rivers system only sections of the Squirrel River and its tributaries that are within the current Alaska National Interest Lands Conservation Act withdrawal. That is, the Squirrel River from the Big Bend to the NANA lands, the West Fork, and the Headwaters Fork, totaling 99.6 river miles, would be determined suitable and recommended for inclusion in the national wild and scenic rivers system. The proposed scenic river corridor is illustrated in Figure 2.1 on page 28.

This would continue the withdrawal of the quarter sections within one-quarter mile of the Squirrel River and its tributaries as described above. The withdrawal outside the proposed river corridor would be revoked to the extent necessary to allow state and Native selections, but not for other forms of appropriation or entry (see Table 2.1 on page 22).

Scenic river designation would require a change in certain management actions from the current protective status. The withdrawn area has been managed as if under a wild designation since the Alaska National Interest Lands Conservation Act was passed in 1980. In accordance with BLM Wild and Scenic River Manual, the following would occur in the implementation of this alternative.

Management actions under scenic designation

- New rights-of-way for transmission lines, natural gas lines, water lines, railroads, roads, bridges and trails would be approved only where no reasonable

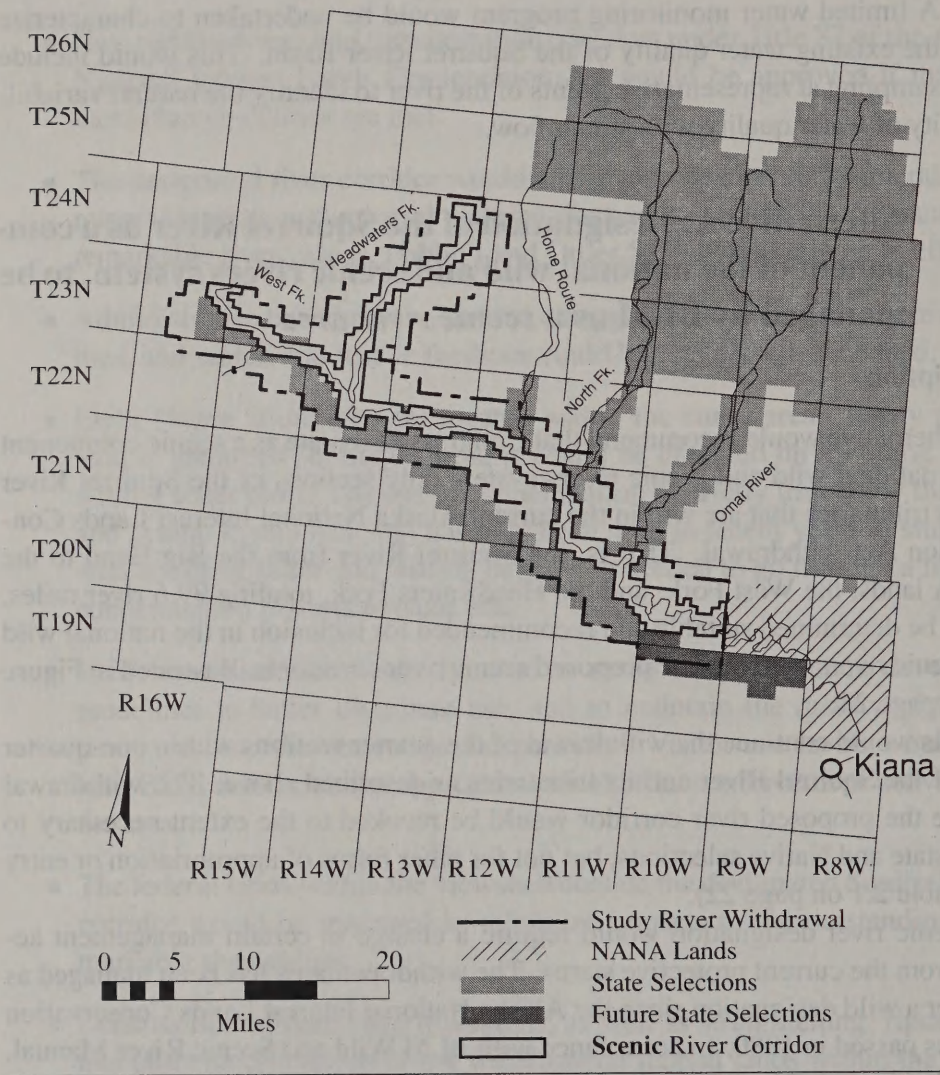

Figure 2.1: Alternative A, Scenic Designation.

alternative location exists. These rights-of-way would be restricted to protect the outstandingly remarkable river values.

- Approximately 50,765 acres of state selections within the withdrawal, but not included in the designated corridor, would become effective and available for conveyance to the state of Alaska under the Alaska Statehood Act, as amended.

- The scenic river corridor would be managed to provide a near-natural setting, maintain low levels of contact between users, and provide limited managerial services and facilities that are screened from the river.

- Levels of recreation use would be regulated to protect and enhance the outstandingly remarkable river values and to ensure the continuation of subsistence uses of public lands by local rural residents.

- Visitor service personnel would monitor inter-party contact levels on the river. Conflicts between recreational and other users users would be reported and investigated.

- BLM would work to redirect or set a limit on commercial guiding and air taxi operations to provide service to the public within the scenic river corridor while avoiding over use of the resources.

- Information would be provided to recreational and subsistence users to help avoid conflicts with bears as well as the other hazards associated with primitive camping. Monitoring by BLM rangers would promote education and public safety, as well as help protect the wildlife resources of the corridor.

- Domestic livestock grazing would not be allowed.

- A Visual Resource Management Class of II would be assigned to the scenic river corridor to retain the existing character of the landscape. A Class II assignment would provide for a low level of change to the characteristic landscape. Management activities would be seen, but should not attract the attention of the casual observer.

Issues	**Alternative A** Scenic designation	**Alternative B** Wild designation	**Alternative C** Combination designation	**Alternative D** No action-no designation
River values.	Federal actions must protect river values.	Federal actions must protect river values.	Federal actions must protect river values.	No special consideration of river values.
Land use	Some development would be allowed in the river area.	River area would remain essentially primitive with very little development.	Upper (wild) segment would be the same as Alternative B. Lower (scenic) segment would be the same as Alternative A.	No special restrictions on development and use.
Access and transportation	Traditional uses of snowmachines, aircraft, and powerboats would continue. Road building could be authorized.	Traditional uses would continue. Road building could be authorized under ANILCA Tile XI when no reasonable alternative exists.	Upper (wild) segment would be the same as Alternative B. Lower (scenic) segment would be the same as Alternative A.	No special restrictions on future uses.
Mineral development	Corridor remains withdrawn. Potential for opening up to 50,765 acres of State selected lands to mineral entry.	Same as Alternative A, but potential for later withdrawal of up to 88,824 acres if State selections are dropped.	Same as Alternative B.	Potential for opening up to 91,501 acres of State selected lands to mineral entry.
Subsistence	Rural preference under Federal management, in scenic river corridor.	Same as Alternative A, but in wild river corridor.	Same as Alternative A, but in wild and scenic river corridors.	Lands conveyed to the State of Alaska would not have Federal subsistence management.
Socio-economic conditions	Eco-tourism opportunities maintained. Continued limits on business activities in the corridor.	Eco-tourism opportunities maintained. Limits on road construction may limit economic development in the future.	Same as Alternative A.	Fewer restrictions on businesses in the corridor
Wildlife	Continued monitoring and federal subsistence management in corridor.	Same as Alternative A.	Same as Alternative A.	Reduced levels of monitoring.

Table 2.2: Summary of management actions for the alternatives.

2.2.5 Alternative B: Designation of the Squirrel River as a component of the national wild and scenic rivers system to be managed by BLM as a *wild river area*

Description

Under this alternative, the same West Fork, Headwaters Fork, and Squirrel River segments described in Alternative A would be recommended for inclusion in the national wild and scenic rivers system as a wild river area to be managed by BLM.

In addition, the legislation designating these segments would include provisions to designate portions of the North Fork, Home Route, or Omar River if the state of Alaska drops certain land selections along these streams. Since the state has selected significantly more land than will eventually be conveyed, and since the corridors the state has selected along these three streams provide access to the same block of land, it is possible the state will drop at least some of the land selections in the Squirrel River drainage, particularly if some portion of the Squirrel River is added to the national wild and scenic rivers system. The state might drop selections along all or part of the North Fork, Home Route, or Omar River. If the state does so, and it becomes possible to add 10 miles or more of these streams to a Squirrel River component of the national system with a federally managed corridor, Alternative B would provide a mechanism. Stream segments to be added would be at least 10 river miles in length and flow directly into segments already designated.

The proposed wild river corridor, with the potential add-on area, is illustrated in figure 2.2 on page 32.

The actions common to all the alternatives described in section 2.2.2, and the actions that would be taken under scenic designation described in section 2.2.4, would apply under wild designation. Some of these would be modified to maintain a more primitive environment along the river [32]. We discuss actions which are more restrictive or specific than those described in sections 2.2.2 and 2.2.4 below.

Management actions for wild designation

- State selections formerly within the withdrawal would become effective and available for conveyance to the state of Alaska under the Alaska Statehood Act, as amended.

- New rights-of-ways for transmission lines, natural gas lines, waterlines, and railroads would be discouraged unless specifically authorized by other

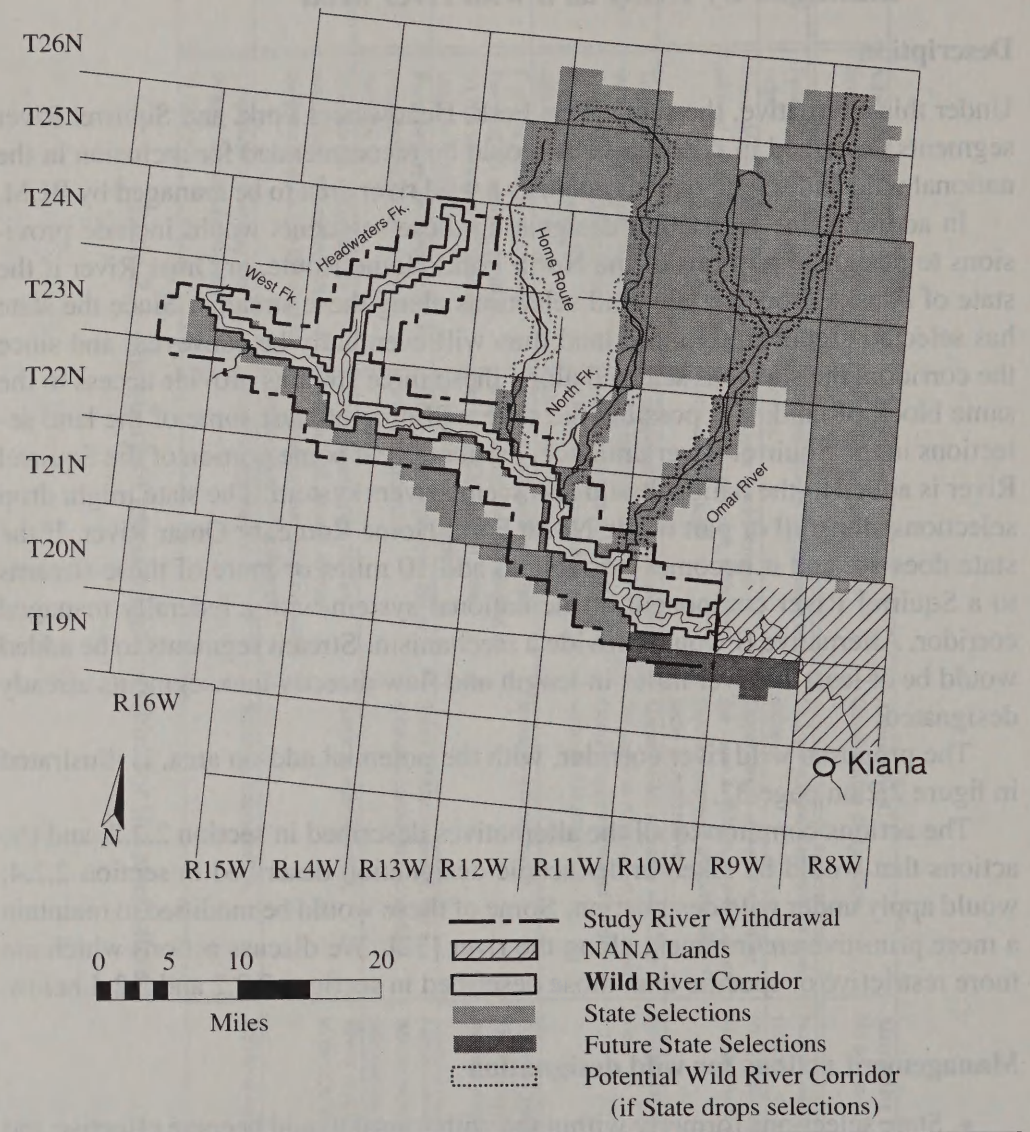

Figure 2.2: Alternative B, Wild Designation.

plans, orders or laws. Where new rights-of-way are unavoidable, locations and construction techniques would be selected to minimize adverse impacts on the outstandingly remarkable river values. A few inconspicuous roads leading to the boundary of the river area would be permitted.

- Harvest of timber would be allowed when required for visitor safety and for certain uses, including subsistence, protected by the Alaska National Interest Lands Conservation Act.

- A Visual Resource Management Class of I would be assigned to the wild river corridor to retain the existing character of the landscape. A Class I assignment provides for natural ecological changes; but, it does not preclude very limited management activity. The level of change to the characteristic landscape would be very low and must not attract attention.

2.2.6 Alternative C: Designation of the upper portion of the Squirrel River as a component of the national wild and scenic rivers system, to be managed by BLM as a *wild river area*; and, designation of the lower portion of the Squirrel River, to be managed by BLM as a *scenic river area*

Description

Under this alternative the West Fork, the Headwaters Fork, and the Squirrel River upstream of its confluence with the North Fork would be recommended for inclusion in the national wild and scenic rivers system as a wild river area, to be managed by BLM. The portion of the Squirrel River from the North Fork downstream to the NANA lands would be recommended for inclusion in the national wild and scenic rivers system as a scenic river area, to be managed by BLM. This would continue the withdrawal of quarter sections within one-quarter mile of the Squirrel River and its tributaries as described above. The proposed wild and scenic river corridor is illustrated in Figure 2.3.

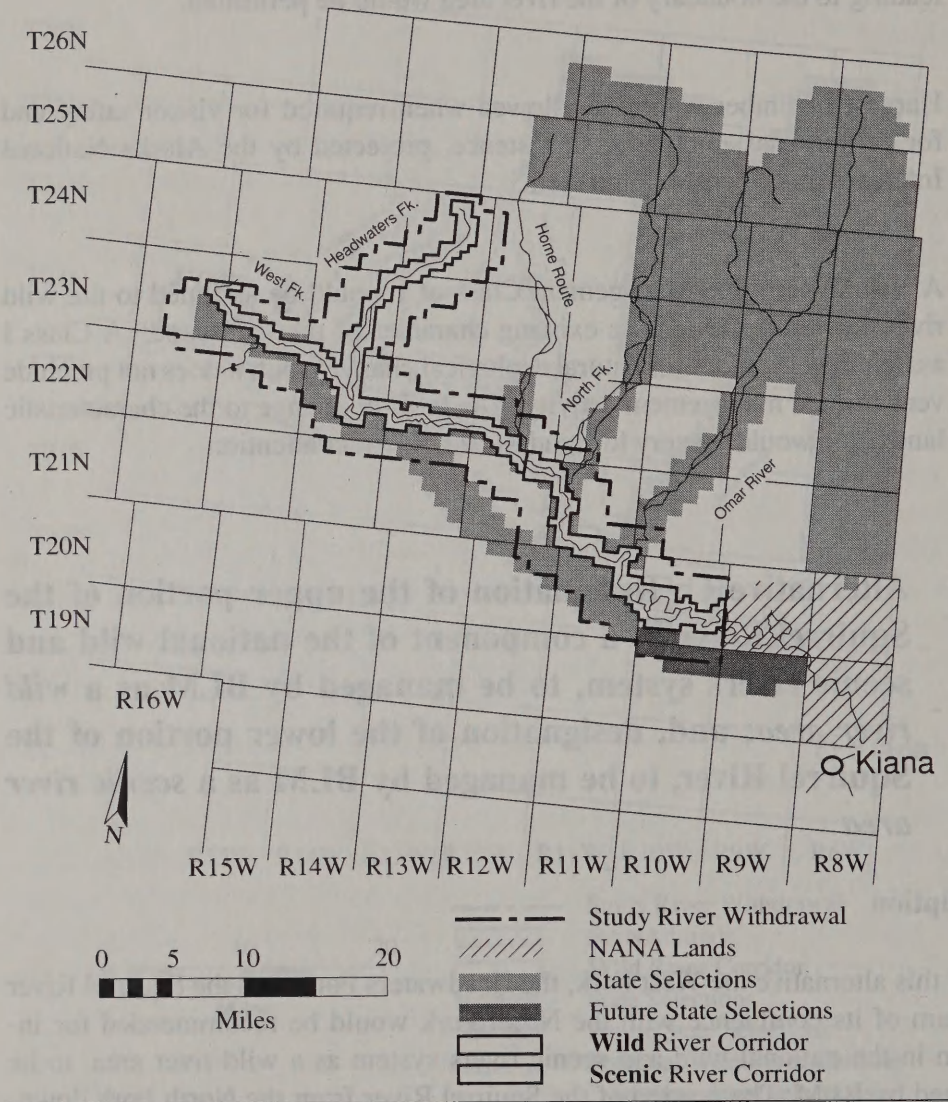

Figure 2.3: Alternative C, Combination of Wild and Scenic Designation.

Management actions common to both segments under combined wild and scenic designation

- Approximately 50,765 acres of state selections formerly within the withdrawal would become effective and available for conveyance to the state of Alaska under the Alaska Statehood Act, as amended.

Management actions for scenic river segments under combined wild and scenic designation

- The management actions under this alternative that apply to the lower segment of the Squirrel River are the same as those described for Alternative A.

Management actions for wild river segments under combined wild and scenic designation

- The management actions under this alternative that apply to the upper segment of the Squirrel River are the same as those described for Alternative B.

2.2.7 Alternative D, the agency's preferred alternative: No action

Description

Under this alternative, BLM would find the Squirrel River is not suitable for designation as a component of the national wild and scenic rivers system, and recommend that Congress take no further action. Then, if Congress takes no action, protective management would end in three years. The Alaska National Interest Lands Conservation Act/Wild and Scenic Rivers Act withdrawal would expire three years from the time the report is submitted to Congress, and the land would return to its previous classification. Public Land Order 5179, which withdrew the lands from all forms of appropriation under the public land laws, including location and entry under the mining laws and from leasing under the Mineral Leasing Act of 1920, would remain in effect. The lands would remain closed to mineral entry.

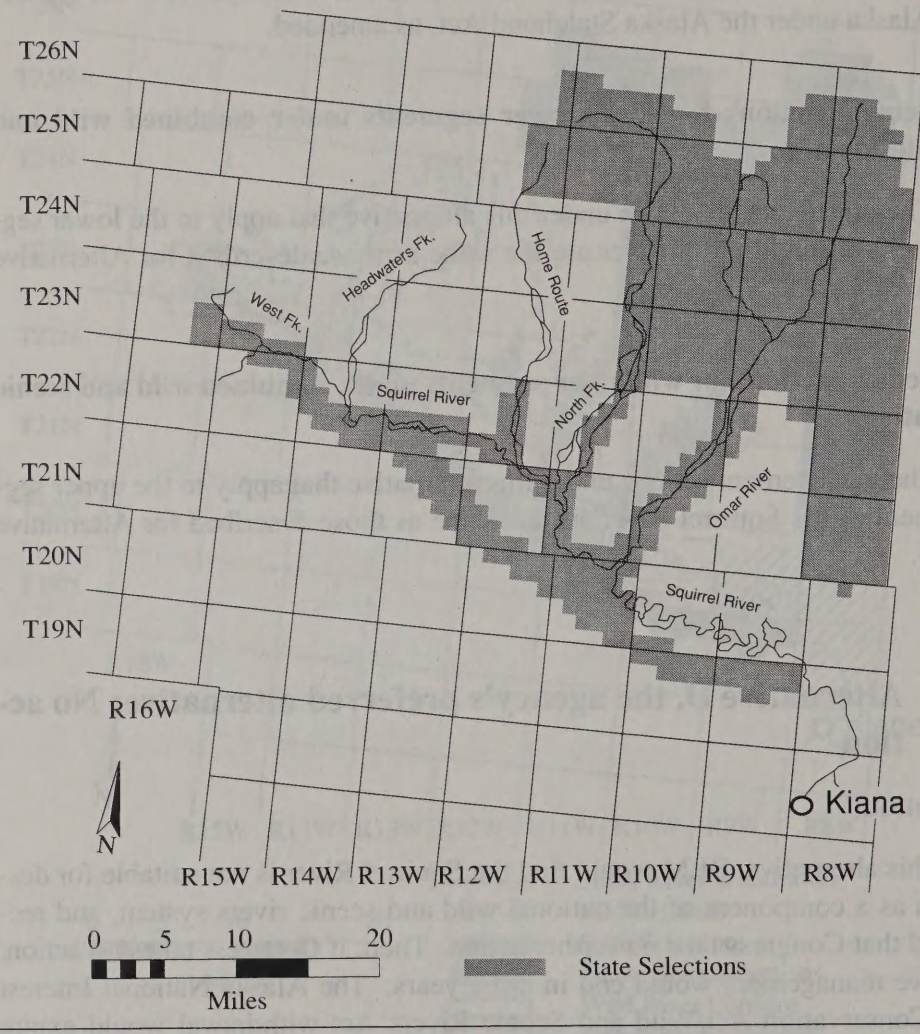

Figure 2.4: State selected lands.

The no action alternative means no designation. This is due to the fact that if Congress—after receiving our recommendation on the suitability of the Squirrel River for inclusion in the national wild and scenic rivers system—takes no action on the matter, then protective management provided the Squirrel as a congressionally designated "study river" would end. This would happen even if the report we send to Congress recommends designation: so long as Congress takes no affirmative action to designate, the river will not be designated and protective management will cease. This is the same result as if we recommended "no designation" to Congress, and Congress accepted the recommendation.

Management actions for no action-no designation

BLM lands would be subject to the management actions listed under those common to all alternatives, as well as the following:

- Approximately 81,501 acres of community grant selections and general purposes grant state selections would become valid and available for conveyance to the state of Alaska under the Alaska Statehood Act, as amended. An additional 15,137 acres would not be affected at this time because of prior selections by NANA Regional Corporation. Refer to Figure 2.4.

Chapter 3

Affected Environment

3.1 Introduction

This chapter provides the available information for resources that may be affected by the alternatives. The affected environment was analyzed for the following resources:

- The outstandingly remarkable cultural heritage river value.[1]
- The outstandingly remarkable river value for fish.
- The outstandingly remarkable recreation river value.
- The outstandingly remarkable scenic river value.
- Land ownership and land use
- Access and transportation
- Mineral development
- Cultural resources
- Subsistence
- Socio-economic conditions
- Wildlife

[1] *Outstandingly remarkable values* are discussed in Section 1.1.4

- Vegetation
- Water

The level of detail presented for each resource is in relation to the level of public concern expressed about the identified issues during the scoping process. Technical information directly related to the affected environment or supporting the analysis in this document is included in the appendices. Other technical material and the relevant laws and regulations are on file at BLM Northern District Office and are available for public inspection.

3.2 Outstandingly remarkable river values

3.2.1 Cultural heritage river value

The fundamental relationship of the Inupiat culture to the land can be recognized by acknowledging Native place names, traditional associations, and cultural concerns when managing for the cultural heritage river value. This would ensure that future management actions are done in knowledge of this value to avoid or minimize conflicts.

The Kuuvangmiut, the Inupiat people of the Kobuk River valley, have used the Squirrel River country for the last 500 years. Their ancestors probably used the country for 1,000 years or more before that. There are two known prehistoric sites related to this culture on the lower Squirrel River: one is at Kiana, which was probably occupied on a seasonal basis until the turn of the century; and the other, several miles upstream on private property, was once a significant winter village [17].

A detailed knowledge of this landscape for navigation and use of the available resources, and communication of this knowledge to the next generation, are viewed by local residents as essential to the Inupiat culture. For example, Kuuvangmiut from Ambler (on the upper Kobuk River) usually hunt and fish no farther west than a few miles below the mouth of the Hunt River; downriver the valley was mainly used by people from Kiana [2]. However, Kuuvangmiut from the entire Kobuk River traveled extensively: seasonally traveling to Kotzebue to trade for seal oil and meat, traveling as far as the South Fork of the Koyukuk for moose (before the now-plentiful animals were known to exist in the Kobuk valley [2]), and crossing the northern passes to the Noatak when caribou were scarce in the Kobuk valley [17].

Knowledge of the land and its resources by the Inupiat people was, and still is, necessary for survival. As an example, pointing to a place on a map or describing a location as "so many miles upstream" often elicits puzzlement from a resident in a northwestern Alaska village today. This is a culture that remains dependent on an extensive knowledge of dozens of specific locations, the resources or special qualities of those locations, and the continuing oral tradition of that knowledge.

In the Inupiaq language, the word *Siksrikpak* literally means "big squirrel river," but refers to the hoary marmot, or "big squirrel" [2]. Perhaps the English name for the river should have been Hoary Marmot River. In another example, the name *Anilgagiaq* means "the way to go home," and refers to a Squirrel River tributary, unnamed on the USGS maps, that flows from the north [13]. People from Kiana and Noorvik logically refer to this river as Anilgagiaq, because it is a commonly-used winter snowmachine route to and from the Noatak River valley. This name also refers to the fact that numerous gravel bars along the river have historically allowed easy walking in the late summer and fall [55].

In the Inupiat culture, it is not common for place names to refer to people. For example, the Omar River, another major tributary of the Squirrel, may be a corruption of an Inupiaq name for the river, *Amun* (pronounced ō-man), which means "heart." If one looks at a map of the Squirrel River drainage, the Amun drains into the middle reaches—the heart—of the Squirrel River. Another reference indicates the river has also been called the *Auriviuraq*, which means "summer camps" in Inupiaq—perhaps a reference to family fish camps located in the area when the men hunted during the summer in the higher country [2].

In an ever-changing world, the Inupiat of the Kobuk valley are still primarily dependent on caribou, an animal whose populations and migrations have witnessed a variability that is reflected in the culture's outlook and survival. For example, caribou were plentiful in the Kobuk valley during the early 1800s, but suffered a serious decline toward the end of the century. The reduced herds of animals retreated to the north and west, forcing the Kuuvangmiut to travel far up the Squirrel to the Noatak valley for caribou [2] and to depend more heavily on other game, such as sheep from the upper Squirrel. Even today, in a village culture tenuously tied to the Western economic base by airplanes and government subsidies, people feel the knowledge that kept them alive in the past may yet be needed again [29].

These experiences are reflected in descriptions of the land. Although the people of modern-day Kiana primarily use the lower Squirrel River for subsistence purposes, they are very concerned with activities in the upper watershed that may impact caribou migration. The additional cost in time, money, and effort to hunt

scattered caribou up the Squirrel River drainage after freeze-up by snowmachine is considerable, compared to hunting the migrating herd by boat when the animals cross the Kobuk River closer to Kiana. Nevertheless, the area is still perceived as an important reserve, or alternate source of fish and game. This type of information is part of a strong cultural tradition that ties today's generation to the land, and to their ancestors who used it in a way that differed little for centuries.

This is what can be called the cultural heritage value of the Squirrel River: the living memories of places and activities, transferred down through time by oral history and language, and linking the people to the land. This cultural heritage value of the Squirrel River is outstandingly remarkable to the people who live in northwest Alaska. The people of Kiana say, "The Squirrel is our backyard. It is where we come from."

3.2.2 River value for fish

The Squirrel River provides important fish habitat in northwestern Alaska for 13 species. The most important species for sport, commercial, or subsistence purposes are Dolly Varden (*Salvelinus malma*), chum salmon (*Oncorhynchus keta*), pike (*Esox lucius*), grayling (*Thymallus arcticus*), and whitefish (*Coregonus sp.*).

Both chum and pink salmon are found in the Squirrel River. Chum salmon are the most numerous and the most important economically because they contribute to subsistence fishing that occurs in the Kobuk and Squirrel Rivers and to the commercial fishery in Kotzebue Sound [23].

The Alaska Department of Fish and Game has regularly monitored chum salmon escapement by aerial means in the Kobuk River area. Records are available from 1962 to the present. Alaska Department of Fish and Game data on chum salmon show the Squirrel River is an important producer of fish in the Kobuk drainage. The estimated harvest of chum salmon varied from 4,000 to 23,000 between the years 1962 and 1991 [23]. Noorvik and Kiana are located downstream from the Squirrel River Study Area and salmon production from the Squirrel River contributes to the harvest for those villages.

Field information indicates that known chum salmon spawning areas are located along much of the main river. Major spawning areas have been identified along the main stem between Timber Creek and Klery Creek above the Omar River, and on the lower portion of the North Fork. During annual aerial monitoring surveys, Alaska Department of Fish and Game observers have noted a few hundred pink salmon spawning in the main river below the mouth of the Omar River. A counting tower was operated in 1982 on the lower Squirrel River by

Alaska Department of Fish and Game, at which time both chum and pink salmon were observed migrating upstream [24]. In addition, large schools of whitefish have been observed in the calm, deep-water pools and northern pike have been found as far upriver as the mouth of the Omar River.

During the annual aerial surveys, arctic grayling were found to be distributed along the entire length of the river, but appeared to be most numerous upriver from Timber Creek [24]. Adult arctic grayling are relatively abundant in the main stem Squirrel River during midsummer. During July 1994, BLM biologists studied arctic grayling populations along an 18-kilometer section of the Squirrel River between the North Fork and the Omar. The estimated population abundance of arctic grayling greater than 250 millimeter fork length in the study area was 2,463 fish or 137 fish per kilometer [26]. This information is within the range of what would be expected based on studies done for other streams in western Alaska.

Based on field observations and information from northwestern Alaska residents, the Squirrel River is thought to have a low rate of general recreational use. Sport fishing activity by non-residents of the area is thought to be very low in spite of the good-quality fishing for arctic grayling during the summer months. The Alaska Department of Fish and Game, which has the authority to set seasons and bag limits for sport fishing, has established liberal limits for grayling and Dolly Varden in this area because of this low fishing pressure. However, the Squirrel River is similar to many other arctic and subarctic streams flowing through tundra ecosystems, in that the waters are relatively sterile and will not support a high biomass of resident species. Consequently, populations of resident arctic grayling will not support as high a harvest in these systems as could occur from streams of similar size in more southerly areas that flow through forested ecosystems. Studies conducted by the Alaska Department of Fish and Game indicate that grayling in these streams are quite vulnerable to over-exploitation [11, 12]. When this has occurred the Alaska Department of Fish and Game has sharply reduced harvests by placing restrictions on daily bag limits.

3.2.3 Recreational river value

The Squirrel River is located in a nearly pristine watershed with very little evidence of man's activities. Within the approximately 350,000 acres of the wild and scenic river study area, only four isolated sites have any present development. These include two Native allotments, where cabins have been erected along the shoreline of the river, and one other cabin site farther from the shoreline on BLM-administered public lands. Limited evidence of a winter trail providing access to

the Klery Creek area, is also visible. Any other evidence of human use is almost non-existent.

The river provides an excellent setting for boating. The entire river is rated as Class I to II water on the International White Water Scale. Recreational use is principally in small rafts or folding canoes. Power boating is possible on the lower 20 miles of the river during the summer. The river can provide an easy, pleasant, one-week recreation trip for individuals, small groups, and families with limited float-boating skills. Good overnight campsites are common along the river within the study area. Camping along the lower river is more difficult, with few suitable campsites due to a lack of gravel bars.

Accessibility to the river is good by northwestern Alaska standards. Depending on the condition of various gravel bars and the type of light, fixed-wing aircraft used, parties can usually charter flights to gravel bars along the upper river. The flight time from Kotzebue to the headwaters of the river is approximately 30 minutes. There are regularly scheduled commercial flights to and from the village of Kiana, at the mouth of the river. Thus, recreation users can float the Squirrel River with a minimal outlay for charter aircraft (approximately $700 from Anchorage). There are fewer logistical problems associated with such a trip than for most trips to other remote rivers in the wild and scenic river system in the northwest region of Alaska, such as the Kobuk or the Noatak.

Currently, a limited amount of recreation use is occurring along the waterway with very little interaction between users, due to low visitor density. The exception to this is during late August and all of September, when numerous hunting parties occupy most or all of the aircraft access spots. BLM presence is primarily devoted to resource inventories and periodic monitoring of guides and outfitters holding BLM Special Recreation Permits. There are no public recreation facilities along the river. Because of the remoteness, difficult access, low management presence, and lack of improvements, the area is classified at the "primitive" end of the BLM recreation opportunity spectrum [33].

The river valley offers sport hunting and fishing opportunities. All portions of the Squirrel River watershed are inhabited by moose at various times of the year. Moose appear to be randomly distributed during the fall, but tend to concentrate along the Omar River and the Squirrel River downstream from its confluence with the Omar during mid- to late winter. Much of the Western Arctic Caribou Herd migrates through the Squirrel River valley each fall and spring, but animals can be seen throughout the year. Hunting-related activities currently comprise the majority of recreational use within the watershed. However, without adequate regulation of wildlife harvests within the range, these values could be lost within

June - September recreation use, Squirrel River		
Year	*Number of people*	*Percentage sport hunters*
1994	193	83
1995	190	96
1996	171	96

Table 3.1: June - September recreation use.

a very short period of time.

The abundance of trophy-class game animals in this watershed has attracted big game guides to conduct operations within this Game Management Unit. In 1988 BLM began issuing Special Recreation Permits to conduct commercial guiding operations within this watershed. Eventually, eight big-game guides were issued permits. BLM estimates that approximately 10 non-guided hunters spent a total of 50 visitor-days in the drainage in 1994. Hunting is concentrated in late August through September.

Visitor-use data suggest that people are willing to travel long distances to use this area because of the factors described above. There are six commercial guide operations authorized to conduct business in the Squirrel River basin, with two of those operations reporting activity in the study area in 1994. The primary activities reported included big-game hunting, fishing and photography. A total of 23 customers, remained for an average stay of eight days, for a total of 184 visitor-days. BLM estimates that over half of these customers were from the Lower 48 states. Most of the remainder were from other areas within the state, but outside the immediate northwest Alaskan region, which includes Kotzebue. A few customers came from other countries.

Current recreation use levels are low, except for late August and all of September, when hunting activity for caribou and moose rises substantially. Dependent upon river ice conditions and depth of snow in any given winter season, there is usually a steady, low level presence of trappers, snowmachiners and dog mushers, with some ice fishing in the spring. Hikers and floaters during June through most of August often encounter no other parties on the river or in the uplands. However, during late August and September, the traffic from small aircraft arrivals and departures is quite noticeable, and hunting parties are well aware of each other.

During 1996, four of the six commercial guiding operations with Special Recreation Permits conducted business in the Squirrel River basin. They served

48 clients, with stays ranging from 7- 12 days, for a total of 503 visitor days. Their primary activities included big game hunting, fishing and photography. Five charter aircraft and water craft operators (transporters) from the local area carried approximately 123 clients, with stays ranging from 4-7 days, for a total of 449 user days. They identified big game hunting, fishing, hiking, rafting and photography as primary activities.

BLM projections indicate that an increase in hunting, is more likely than an increase in floaters due to designation. However, given the current high level of hunting use evident in the Squirrel River, aircraft access points are often continuously occupied by a series of users. The opportunity for a significance increase in hunting seems small. There may be fluctuations in overall use tied to intermittent publicity about the area.

River managers working on designated wild and scenic rivers in Alaska and the Lower 48 indicate there is often a slight increase in visitation within three to four years following designation, which then drops off. Media coverage, such as magazine articles, name recognition, and accessibility, can affect visitor use.

3.2.4 Scenic river value

The Squirrel River provides a wide variety of regional scenery in a relatively short river length. Land form and vegetation range from a braided headwaters stream in alpine tundra typical of mountainous portions of northwestern Alaska, through a wide river valley characterized by an upland spruce-hardwood forest, into a bottom-land spruce forest with occasional bluffs and mountains in the background, and then opening out to views on the lower river with the stark Kallarichuk Hills in the northeast dominating the scenery.

Scenic evaluations indicate the relative value of visual resources and provide a tool for achieving management objectives. Scenic quality evaluations were completed in 1994.

Public lands are assigned an A, B or C *scenic quality rating* based upon seven key factors: land form, vegetation, water, color, adjacent scenery, scarcity and cultural modifications [33]. The visual resource assessment determined that scenic quality A values were found principally in the Baird Mountains, including the main stem of the Squirrel River above the confluence with the Home Route to the Headwaters; and within the headwaters of the Home Route, the Omar, and the North Fork tributaries. The main stem of the Squirrel River below the confluence with the Home Route received a scenic quality rating of B. Based on these scenic

quality evaluations, BLM determined that the Squirrel River contains outstandingly remarkable scenic river values.

Another consideration relating to the scenic river value is the *sensitivity level* of the lands surrounding the Squirrel River. Public lands are assigned high, medium, or low sensitivity levels by analyzing various indicators of public concern. The natural landscape setting of the Squirrel study area warrants assignment as a high sensitivity level.

Based on the scenic quality and sensitivity level, the Squirrel River area was given a Class I *management assignment*, which provides guidance to preserve the existing character of the landscape. This class provides for natural ecological changes, but does not preclude very limited management activity. Changes to the characteristic landscape should be very minimal and must not attract attention.

3.3 Land ownership and land use

3.3.1 Land ownership

Figure 1.4 depicts land ownership within the Squirrel River drainage and surrounding areas. Figure 2.4 shows overlying state selections that would become valid if the protective management as a wild and scenic study river were to end. The current environmental impact statement study area includes lands withdrawn by the Wild and Scenic Rivers Act, as amended by the Alaska National Interest Lands Conservation Act, and which were studied by the National Park Service as part of its 1985 draft environmental impact statement project. Additional lands were also identified for study by BLM in 1993. The environmental impact statement study area includes all public lands within sections two miles from both sides of the Squirrel River from its headwaters to its lower reach, approximately 22 miles north of Kiana. It also includes sections two miles on both sides of the Headwaters and West Fork tributaries, and lands within sections 0.5 miles on both sides of the Home Route, North Fork, and Omar River tributaries.

That portion of the study area extending two miles from both sides of the river was designated as a possible addition to the wild and scenic rivers system by Sec. 5(a) of the Wild and Scenic Rivers Act, as amended by Sec. 604 of the Alaska National Interest Lands Conservation Act on December 2, 1980. Section 15 of the Wild and Scenic Rivers Act, as amended by Section 606 of the Alaska National Interest Lands Conservation Act, withdrew the lands from all forms of appropriation, including mining, mineral leasing, and state selection. The tributary areas

were added to the study area by BLM for consideration during the current environmental impact statement project. The total study area contains approximately 390,660 acres. It does not include land already conveyed to the NANA Regional Corporation under the authority of the Alaska Native Claims Settlement Act of 1971. It also does not include Native allotment parcels conveyed under the authority of the Native Allotment Act of 1906. By comparison, the lands previously studied by the National Park Service included portions of the lower Squirrel River, which, although part of the original Alaska National Interest Lands Conservation Act withdrawal, have since been conveyed to NANA.

Principal landowners within the general area are the federal government and NANA. Federal ownership includes public lands administered by BLM and conservation system units administered by the National Park Service and the US Fish and Wildlife Service. Those lands selected by the state of Alaska and by NANA, but which are awaiting conveyance, are still under federal ownership.

Approximately 16 percent (38,249 acres) of the the Alaska National Interest Lands Conservation Act withdrawal had previously been selected by NANA under provisions of Section 12(a) of Alaska Native Claims Settlement Act for the village of Kiana. This represents a prior valid existing right to which any federal action is subject. All of the lands selected by NANA are downstream of the Omar River. As of October 1, 1997, NANA has received title to approximately 1.4 million acres and is entitled to receive approximately 0.8 million additional acres.

Much of the land on either side of the lower 22 miles of the Squirrel River has been conveyed to NANA. Two one-acre site easements along the lower Squirrel River (within the conveyance), including adjoining 50-foot-wide trail easements extending to public lands, have been reserved under section 17(b) of the Alaska Native Claims Settlement Act for public purposes. One easement is located in section 6, T. 19 N., R. 8 W. for the existing landing site, and an adjoining easement has been reserved for the trail leading to Klery Creek mineral deposits. This easement may provide a resting area for travelers on the Squirrel River. The second easement, located in section 35, T. 19 N., R. 8 W., may also serve as a trailhead and resting/camping area for river travelers. Both of these easements are outside the Squirrel River study area, but may affect recreation use on the river.

The state of Alaska has filed selection applications under the Alaska Statehood Act, as amended, for approximately 0.5 million acres in the Squirrel River drainage, including approximately 0.1 million acres of the existing study withdrawal. The state may maintain selections equal to 125 percent of the remaining entitlement (a 25 percent overselection). State selections on lands not available for selection due to prior selections or withdrawals (top-filings) are not counted when

calculating this percentage. The remaining state entitlement is approximately 14.4 million acres. When the Squirrel River withdrawal is lifted (in whole or in part), the state selections within the restored area will become valid and will be counted against the state's overselected acreage. At that time, the state of Alaska will be required to relinquish an equal acreage somewhere in the state. Although state selection topfilings have no segregative effect, valid state selections require concurrence by the state of Alaska before BLM may authorize use of the land.

The state of Alaska, by virtue of the Submerged Lands Act and the Alaska Statehood Act, owns tidelands, coastal submerged lands, and lands lying beneath navigable inland waters. The Squirrel River, from its mouth on the Kobuk River to its junction with the Omar River in T. 20 N., R. 11 W., has been administratively determined by BLM to be navigable. Thus, the state of Alaska owns the bed of this section of river up to the ordinary high-water line. BLM has not made an administrative determination upstream. The state contends that the Squirrel River is also navigable between the Omar River and the North Fork. Administrative decisions on navigability are subject to legal challenge, and the extent of state ownership on the basis of navigability is yet to be determined.

There are also nine approved and/or conveyed individual Native allotment parcels within the study area. Eight parcels are situated along the Squirrel River between the North Fork and the lands conveyed to the NANA Regional Corporation. These include one near the North Fork, two at the mouth of the Omar River, four between the Omar River and Timber Creek, and one near the mouth of Timber Creek. The ninth application is for a site on Tukpahlearik Creek, a tributary of the upper Omar River.

Public Land Order chronology of the Squirrel River study area

Several public land orders and other land actions have been issued over the years that have affected land status in the Squirrel River study area. These are listed in chronological order below for the convenience of the reader:

July 7, 1958. The Alaska Statehood Act was passed. Under this act, provisions of the Mental Health Act and the Alaska National Interest Lands Conservation Act, the state is entitled to receive approximately 104.4 million acres of public land. As of October 1, 1997, the state had received patent to approximately 41.4 million acres of surveyed land, and tentative approval to approximately 48.6 million acres of unsurveyed land. The remaining state entitlement is approximately 14.4 million acres.

October 2, 1968. The Wild and Scenic Rivers Act was passed. This act instituted a national wild and scenic rivers system by designating the initial components of that system and by prescribing the methods and standards according to which additional components may be added to the system.

December 13, 1968. Secretary of the Interior Stewart Udall approved the withdrawal of all unreserved public land in Alaska except those under lease, license, or permit under the mineral leasing laws. This withdrawal was approved as a result of the discovery of oil at Prudhoe Bay and the need to settle Native land claims. It included public lands within the Squirrel River drainage.

January 17, 1969. Public Land Order 4582 modified the Udall withdrawal by withdrawing all public lands in Alaska from all forms of appropriation except for metalliferous mining.

December 18, 1971. Passage of the Alaska Native Claims Settlement Act set aside land for possible conveyance to Natives. In addition, it gave the Secretary of the Interior the right to classify public interest lands and provided that lands be set aside for possible additions to or for creation of national parks, national wildlife refuges, national forests and national wild and scenic river systems. This act initiated the process to identify potentially eligible wild and scenic rivers in Alaska.

March 9, 1972. Public Land Order 5179 withdrew all lands in the Squirrel River drainage (except NANA selected and conveyed land) from all forms of appropriation for study and possible addition to one of the four federal systems. This Public Land Order was a direct result of passage of Alaska Native Claims Settlement Act.

March 9, 1972. Public Land Order 5184 withdrew the lands selected by NANA from all forms of appropriation. Public land orders 5179 and 5184 precluded any new mineral entry or leases, and Public Land Order 5184 precluded any state selections until October 1, 1976.

December 2, 1980. Passage of the Alaska National Interest Lands Conservation Act. Sec. 606 amended the Wild and Scenic Rivers Act to withdraw the land two miles from both sides of the Squirrel study river from all forms of appropriation.

November 20, 1981. Public Land Order 6092 opened land in the Squirrel River drainage to state selection which was previously closed under Public Land Order 5179.

June 13, 1983. The Alaska BLM State Director signed the decision record for the Seward 1008 Study, which described the Squirrel River surface management unit that would remain withdrawn from all forms of appropriation under Public Land Order 5179.

November 9, 1983. Public Land Order 6477 opened the land in the Squirrel River drainage outside the Squirrel River surface management unit to mineral location and mineral leasing. However, this Public Land Order did not apply to the Squirrel River withdrawal.

3.3.2 Land use

Land use within the study area can be described as seasonal or intermittent. Uses include subsistence hunting and fishing, trapping, and seasonal residency, primarily by Natives with permanent residences in Kiana or Noorvik. In addition, the area is also used for recreational boating and sport hunting and fishing.

Owners of Native allotments along the river may construct permanent residences and other structures if they desire. In addition, NANA may build structures on any of its lands along the lower section of the Squirrel River. Currently, the federal lands along the river are not available for settlement or leasing because of the protective classification of the the Alaska National Interest Lands Conservation Act withdrawal. This protective classification is in effect until Congress determines whether or not to add any portion of the Squirrel River to the national wild and scenic rivers system. In addition, the BLM Alaska State Director signed the decision record of the Seward 1008 Study on June 13, 1983. This study designated a Squirrel River surface management unit that would remain withdrawn from all forms of appropriation and occupancy, including any sales or leases, but not from state selection. There are three cabins visible from the river. One is located downstream from the North Fork and the other two are downstream from the Omar River. Two are on Native allotments; the third is on federal land and is subject to removal or use as an administrative site. Families with fish camps along the lower section of the Squirrel River use canvas wall tents and other temporary structures.

Active mining claims held under the Mining Law of 1872, as amended, are

located east of the Omar River along Timber Creek and Klery Creek outside of the study area. Copper claims have been staked historically on the North Fork but no active claims presently exist. In addition, there is a reported mineral occurrence of placer gold in the headwaters of the Squirrel River approximately 5.5 miles above the end of the designated corridor. However, no mining claims are located within the study area itself. There is a more detailed discussion in the Minerals section of this chapter (section 3.5).

A large block of land in the northeast part of the Squirrel River drainage has been selected by the state for its mineral potential. This land is mostly outside the study area, and includes the headwaters of the North Fork and the Omar Rivers. Selections along the North Fork, Omar River, and south of the main stem of the Squirrel River are intended for transportation corridors. There is a more detailed discussion in the Access and Transportation section of this chapter (section 3.4).

Priority for selected land conveyance is established by the state each year and is subject to changes of a political nature. However, BLM is authorized to make contracts and grant leases, licenses, permits, rights-of-way, and easements to these lands, provided the state has concurred prior to such action pursuant to Section 906(k) of the Alaska National Interest Lands Conservation Act. No right-of-way applications have been received by BLM in the Squirrel River study area. Existing access and use in the area has been casual use or authorized by recreation permit.

3.4 Access and transportation

Primary access to the Squirrel River is by aircraft, boat, and snowmachine. There is commercial jet service to and from Kotzebue, and commercial air service between Kotzebue, Noorvik and Kiana. Charter air service is available in both Kotzebue and Kiana. A typical one-way charter flight from Kotzebue to the Squirrel River takes 30 minutes or less. During normal to low-water levels, several gravel bars in the upper and middle river area may be suitable for landing light, wheel-equipped aircraft (such as Piper PA-18s, Cessna 180s, 185s, 206s, and Heliocouriers). Such aircraft have landed on gravel bars upriver from the mouth of the North Fork, as well as on gravel bars next to the North Fork and Omar River. The condition of these bars and their suitability as landing sites change annually during break-up and other high-water events. The upper portions of the river outside of the study area have a number of ridges and benches overlooking the flood plain that can also provide reasonable access by wheel-equipped light aircraft.

Power boats and barges travel up and down the Kobuk River between villages

above and below Kiana. With sufficient water, power boats have gone up the Squirrel River as far as the North Fork, but more commonly as far as the Omar River. All but the upper 10 miles of the Squirrel River can be easily floated in a small craft such as an inflatable raft, canoe, or kayak.

During the winter when the rivers, lakes, and marsh areas are frozen, access to the river area is possible by light ski-equipped planes, snowmachines, dog sleds, and individuals on skis or snowshoes. Open water areas are always present throughout the middle portions of the Squirrel River during winter. As a result, travelers generally stay off the river and the winter routes change with the weather conditions.

There are no permanent trails, roads, easements (including Alaska Native Claims Settlement Act Section 17(b) easements), identified R.S. 2477 rights-of-way, or improved airstrips in the study area. An unimproved road suitable for use by all-terrain vehicles parallels the lower portion of Klery Creek from the Squirrel River up to Jack Creek outside of the study area on NANA and state selected lands. A winter trail runs northeast from the Kobuk River just east of Kiana to the Klery Creek airstrip.

Potential transportation and access routes have been identified within the Squirrel River study area as possible future developments. In 1993, the state of Alaska selected lands along the Squirrel River, the Omar River, and the North Fork, primarily for transportation purposes. The selections were made for three reasons: an extension of the road system to the coast, overland access to the mineral-rich area at the headwaters of the Omar River and the North Fork, and to satisfy Borough land entitlements.

To extend the road system, state selections provide for the segment entitled "No. 47, the West Coast Link," as part of the "Proposed Extension of Transportation System" [1] and the "Multimodal Transportation & Utility Corridor Systems in Alaska," [5]. The general route of this corridor runs north of Kiana and up the main stem of the Squirrel River, then up the West Fork, across the divide into the Noatak drainage and over to Kivalina. These selections would provide segments of a proposed cross-country highway or railroad linking the Dalton Highway to the west coast, probably at the port of Kivalina.

Selections along the Omar and North Fork Rivers provide access for mineral potential in the northeast portion of the Squirrel River watershed [38]. These selections, were also identified for possible Borough land entitlement purposes on the northern portion of the Squirrel drainage.

Figure 3.1 illustrates these potential transportation routes.

Although the potential for construction within 15 years is low, future trans-

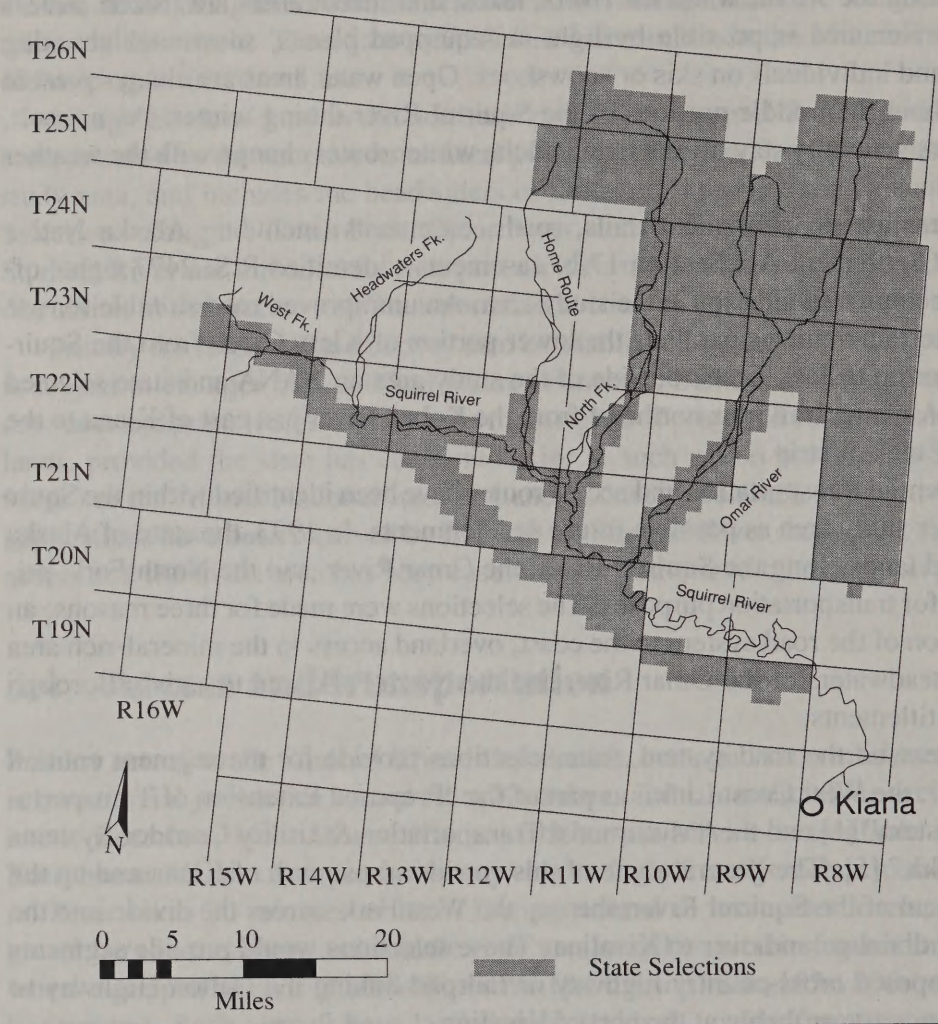

Figure 3.1: Potential transportation routes selected by the state of Alaska.

portation or utility developments extending from the Dalton Highway to Kivalina would likely cross federally administered conservation system units administered by the National Park Service, the U.S. Fish and Wildlife Service, and BLM. Access would be addressed under Title XI of the Alaska National Interest Lands Conservation Act. This procedure would involve identification of federal lands to be crossed, review, public comment and preparation of an environmental impact statement. Title 16 USC 3166 states:

> (A) When each Federal agency concerned decides to approve each authorization within its jurisdiction with respect to that system, then the system shall be deemed to be approved and each such agency shall promptly issue, in accordance with applicable law, such rights-of-way, permits, licenses, leases, certificates, or other authorizations as are necessary with respect to the establishment of the system; or
>
> (B) When one or more Federal agencies decide to disapprove authorization within its jurisdiction with respect to that system, then the system shall be deemed to be disapproved and the applicant for the system may appeal the disapproval to the President.

This procedure would be required if the state applied for a transportation or utility system route regardless of designation or attachment of state selections within the Squirrel River study area. Another access and transportation concern, related to subsistence, is reflected in Title VIII of the Alaska National Interest Lands Conservation Act, which states that:

> (a) The Secretary shall ensure that rural residents engaged in subsistence uses shall have reasonable access to subsistence resources on the public lands.
>
> (b) Notwithstanding any other provision of this Act or other law, the Secretary shall permit on the public lands appropriate use for subsistence purposes of snowmobiles, motorboats, and other means of surface transportation traditionally employed for such purposes of local residents, subject to reasonable regulation.

Therefore, reasonable access for subsistence purposes would be allowed under any designation.

An additional important aspect of transportation and access is navigability. In 1982, BLM administratively determined the Squirrel River to be navigable to the

mouth of the Omar River for Alaska Native Claims Settlement Act conveyance purposes. However, based on the physical characteristics of the river and the navigability determination on the Gulkana River[2], it is probable that the Squirrel River would be determined to be legally navigable to the Big Bend, in T. 22N., R. 14 W., KRM. This means the navigable water column and title to the lands under the navigable portions of the Squirrel River would be owned by the state of Alaska at the time of Statehood under the Submerged Land Act of 1953 and the Alaska Statehood Act of 1958. Access within the navigable waterway would then be governed by the Alaska State Constitution in Section 14, Title VIII, which says:

> Free access to the navigable or public waters of the state shall not be denied any citizen of the United States or resident of the state, except that the legislature may by general law regulate and limit such access for other beneficial use or public purposes.

Another concern involves the Native allotments located within the study area. These private inholdings are addressed under the Wild and Scenic Rivers Act, Section 12, which says:

> ...nothing shall be construed to abrogate any existing rights, privileges, or contracts affecting Federal lands held by any private party without the consent of said party.

In addition, Title VI of the Alaska National Interest Lands Conservation Act protects access to private lands with this language:

> ...the boundary of any such river shall not extend around any private lands adjoining the river in such a manner as to surround or effectively surround such private lands.

Although access through wild and scenic river corridors in Alaska may be acquired under Title XI of the Alaska National Interest Lands Conservation Act, subject to the terms and conditions of 16 United States Code 3167, management standards in BLM's Wild and Scenic Rivers Handbook limit new construction of roads, trails or other provision for motorized travel within the river corridor under a wild river designation. These standards discourage development of new

[2]State of Alaska v. Ahtna, Inc. and United States of America [No. 87-3555]

transmission lines, natural gas lines and water lines, and restrict new rights-of-way. In most cases, they also prohibit motorized use. However, under scenic designation, roads or trails may occasionally bridge the river and could be allowed within the corridor if they are inconspicuous and well-screened. New transmission lines, natural gas lines, etc., are also discouraged, but could be permitted. In addition, motorized travel on land or water may be permitted.

3.5 Mineral development

3.5.1 Geologic setting

The study area is underlain by rocks of three principal stratigraphic sequences [21]. The middle and upper reaches of the Squirrel River including the Headwaters Fork, the Home Route, the North Fork and the Omar River, are underlain by thinly laminated meta-limestone, argillaceous to silty meta-limestone, massive meta-limestone and marble, and thinly bedded to massive dolostone of Ordovician age. These rocks of the Nakolik River Sequence, Baird Group, are thought to have been deposited in a warm, locally restricted shallow to very shallow water environment.

The second stratigraphic sequence of rocks of much smaller extent are the meta-sedimentary and meta-volcanic rocks of the Tukpahlearik Creek Sequence, which underlie the upper reaches of the Omar River and Timber Creek, as well as the western half of the Kiana Hills to the south of the Squirrel River. These black carbonaceous-quartzite, siliceous argellite, dolostone, marble, pelitic schist, chert pebble meta-conglomerates, calc-schist, micaceous marble, and mafic meta-volcanic rocks are believed to have formed in a basinal environment, locally restricted and possibly in an interplatform basin. The rock is metamorphosed to the degree identified as greenschist and blueschist facies.

The third sequence of rocks is the Kallarichuk Hill Sequence which underlies Klery Creek and the eastern point of the Kiana Hills. This tightly-folded marble with intercalated quartz-chlorite schist, black carbonaceous quartzite, and calcareous mica schist of Paleozoic (earliest Mississippian, in part) age is host to placer gold occurrences historically mined on Klery Creek. While this sequence lies beyond the study area, it is of interest as it is mineralized locally and is correlated with the mineralized rocks of the Ambler Schist belt much farther to the east.

3.5.2 Mineral occurrences and historic claim locations

The U.S. Geological Survey, U.S. Bureau of Mines, and the Alaska Division of Geological and Geophysical Surveys have documented several mineral occurrences in the rocks of the Nakolik River Sequence, which underlies most of the study area. Most recently, the U.S. Geological Survey, as a part of its Alaska Minerals Resource Assessment Program, conducted an extensive geochemical survey of the entire Baird Mountains Quadrangle, in which the Squirrel River basin lies [41]. Of the 10 geochemical anomalies they noted, two (the Omar and Frost prospects described below) have had significant exploration work done on them.

Although no claims of record existed within the study area boundaries, records from the Noatak-Kobuk District Recorder's Office indicate that 68 lode claims (the Omar Prospect) were staked for Kennecott Copper Corporation in an area just north of the study area. These claims were located on the upper west fork of the Omar River on the divide between the Omar River and North Fork of the Squirrel River (figure 3.2, Location 1). At the same time, 16 lode claims (the Frost Prospect) were staked, also for Kennecott Copper Corporation, on the upper east fork of the Omar at Location 2. These lode copper claims at both locations were active from 1965 through 1972. A barite discovery (Powdermilk) was reported at Location 3 by the U.S. Geological Survey in 1988 as part of its Alaska Minerals Resource Assessment Program field investigations (figure 3.2, Location 3). No claims are associated with this occurrence. The Barr claims, at Location 4, were five copper lode claims staked in 1976 and 1979 on an upper tributary of the Headwaters Fork. These claims were declared abandoned and void for failure to file assessment work in 1984. Location 5 represents nine gold placer claims located in 1979, also on an upper tributary of the Headwaters Fork, and allowed to lapse the following year. Location 6, on the western edge of the Squirrel River drainage divide in the headwaters of the Agashashok River, represents four lode gold claims staked in 1966 that lapsed the following year. Location 7 represents 18 copper lode claims on the divide between the Agashashok River and the North Fork. These claims were staked in 1966 and lapsed the following year. Several gold placer claims are currently active along Klery Creek and Timber Creek, outside of the study area.

3.5.3 Mineral deposit modeling

Over the past 33 years, the existence of significant base-metal deposits have been recognized within a broad east-west belt of Paleozoic-age schist, meta-limestones

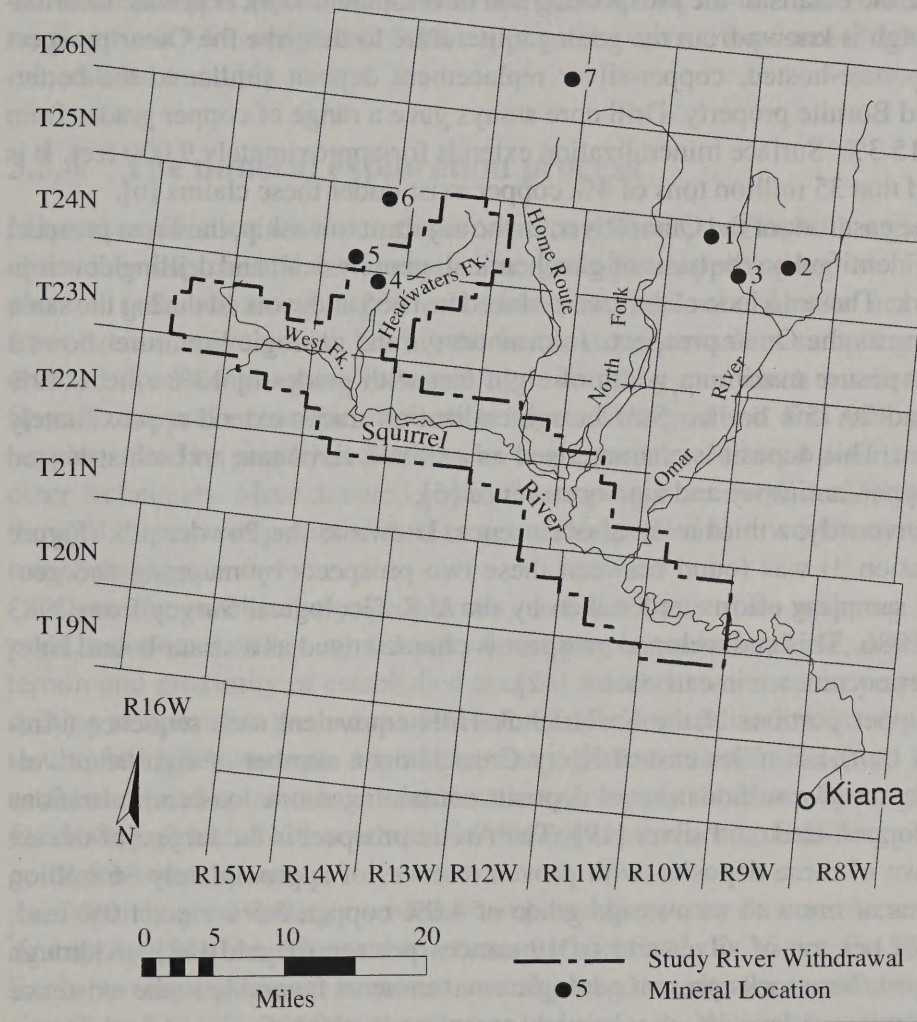

Figure 3.2: Mining location map.

and associated rocks along the south slope of the Brooks Range [19]. This belt underlies the Squirrel River watershed and includes the Omar Prospect, the Ambler District properties of Ruby Creek (Bornite) and Arctic, and the Red Dog Mine in the DeLong Mountains.

While the details of the prospecting and development work is private information, enough is known from the geologic literature to describe the Omar prospect as a carbonate-hosted, copper-silver replacement deposit similar to the better-developed Bornite property. Drill core assays gave a range of copper grades from 9.6% to 15.3%. Surface mineralization extends for approximately 9,000 feet. It is estimated that 35 million tons of 4% copper exist under these claims [6].

On the east fork of the Omar River, in the adjacent township, the Frost prospect has been identified on the basis of geochemical, geophysical, and drilling development work. These 16 lode claims were staked in 1965 and worked during the same time frame as the Omar prospect. Information in the geologic literature shows a surface exposure maximum width of eight feet with grades of 13% zinc, 0.49% copper and 20.75% barite. Surface mineralization traces extend approximately 5,000 feet. This deposit is characterized as a mixed carbonate and schist-hosted silver, copper, antimony and zinc occurrence [6].

More recently, a third mineral occurrence, known as the Powdermilk (Figure 3.2, Location 3) was found between these two prospects by mapping and geochemical sampling efforts undertaken by the U.S. Geological Survey from 1983 through 1986. This undeveloped prospect is characterized as a strata-bound zinc-lead-silver occurrence in carbonates [42].

The upper portions of the Kallarichuk Hills-equivalent rock sequence (Arctic Schist Belt),125 miles east of Klery Creek, host a number of significant volcanogenic massive sulfide mineral deposits containing anomalous concentrations of zinc, copper, lead, and silver [19]. The Arctic prospect is the largest of the six best-known of these deposits, with proven reserves of approximately 36 million metric tons of ore with an average grade of 4.0% copper, 5.5% zinc, 1.0% lead, 1.5 ounces per ton of silver and 0.019 ounces per ton of gold [42]. Although data suggest these rocks present geologic environments favorable to the existence of similar mineral deposits, geochemical sampling by the U.S. Geological Survey found only one slightly anomalous sample for copper, with moderately anomalous lead values, at the head of Crooked Creek, a tributary to Klery Creek [14].

The Baird Mountain Group in the Nakolik River Stratigraphic sequence, which underlies the study area, is correlative with carbonate rocks that host the Ruby Creek (Bornite) prospect some 120 miles to the east of the study area [6]. The Ruby Creek deposit is believed to contain at least 100 million short tons of po-

tential ore averaging 1.2% copper with associated minor amounts of zinc, cobalt, lead, arsenic, antimony, and germanium. The primary ore body at Ruby Creek, which had been developed by shaft, contains a minimum of 200,000 short tons of 8.4% copper [4]. By comparison, reconnaissance drilling of 19 drill holes on the Omar prospect, above the forks of the Omar River, has identified assay grades ranging from 9.6% copper to 15.3% copper and a surface exposure of a 9,000-foot mineralized trend [6].

3.5.4 The mineral exploration process

Mineral exploration within northwest Alaska generally begins with regional geochemical sampling and a reconnaissance geologic mapping program. Soil samples are collected along ridge crests and stream sediment samples are retrieved from streams at every fork. During the first season, anomalous sampling and mineralized float sampling are followed by resampling at a much smaller interval. Specific mineral occurrences are then targeted for grid soil and rock sampling, supplemented by geophysical methods: magnetometer, induced polarization, and other techniques. More detailed geologic mapping is accomplished in the area of the grid to pinpoint potential drill targets. This preliminary work may take from two to three years or more.

Once the geochemistry, geophysics, and detailed surface mapping are compiled, a diamond drill is carried in by helicopter or tracked vehicle, depending on terrain and proximity of established access. Another two or more years is spent drilling to determine the extent of the sub-surface mineralization. At any point after the first hole intercepts anomalous assay grades, a tent-frame camp is usually established and an airstrip is constructed to resupply the camp by single-engine fixed-wing aircraft. With a substantial mineral occurrence, this drilling phase may go on for several years.

Depending on findings, wooden camp buildings may be constructed and the airstrip upgraded or relocated to accommodate C-47, DC-6, or C-130 aircraft. Earth-moving equipment is moved in and parked on site for construction of the airstrip and to open surface trenches on the deposit. Within the next five to 10 years, depending on favorable indications, a go or no-go decision is made. At that point, the permitting process is initiated to construct mine/mill facilities. Provisions for construction of a haul road to move the concentrated ore to smelter and market may also be included in the permitting process at this time. This process may take another three to seven years or more. Mine development and stripping represent another one to two years before production begins.

3.5.5 The Red Dog Mine development scenario

In the case of the Red Dog Mine, the only base-metal lode mine currently in production in northwest Alaska, the time from initial discovery to production of the first ton of ore concentrate was 19 years. Discovery of mineralization was made by U.S. Geological Survey personnel in 1970 and confirmation drilling of the deposit occurred 10 years after discovery. In 1979, a partnership was formed between Cominco Alaska and the NANA Regional Native Corporation. The operation was inactive for approximately two to three years because the deposit was located on lands identified for withdrawal from the public land laws under Alaska Native Claims Settlement Act. The lands were conveyed to NANA, and the mine was then developed as a joint venture between the Native corporation and the mining company. The decision to go to production was made in 1983 and the environmental impact statement process was completed in 1984. For production to occur, it was necessary for the state of Alaska to guarantee financing for construction of a haul road from the mine to the coast for shipment of the ore to a smelter in Canada. These negotiations with the state for infrastructure financing were completed in 1985. The 52-mile haul road to the coast was completed in 1988 and port facilities were completed in 1989. The mill became operational in October 1989 and the first ton of concentrate was produced in November of that year.

3.5.6 Squirrel River watershed mineral development scenarios

On March 9, 1972, the lands containing the Omar and Frost prospects were closed to mining by Public Land Order 5179—the same Public Land Order that affected Red Dog and withdrew these lands for possible inclusion in one of the four national systems as a result of the Alaska Native Claims Settlement Act. Active claims in this withdrawal could be maintained only by filing annual affidavits of annual labor with the Alaska Recorder's Office and, after October 21, 1976, with BLM. If this annual filing was not done the claims were lost and could not be restaked. On December 2, 1980, the Alaska National Interest Lands Conservation Act was passed. Sec. 604 of the Alaska National Interest Lands Conservation Act amended the Wild and Scenic Rivers Act to provide for study of the Squirrel River and withdrew lands along the river. A four-mile corridor was closed to entry under the general mining laws. The closure remains in effect until the study is completed. The action did not affect the Omar and Frost properties.

The Omar and Frost prospect claims were located in 1964 but lapsed in 1972. They were not restaked after Public Land Order 6477 opened 703,421 acres of the

Squirrel River watershed under the general mining laws in November 1983. The land was then closed by a legal injunction from Dec. 31, 1986, until the related lawsuit was dismissed for lack of standing on Nov. 4, 1988, and the injunction was lifted. On December 31, 1992, the state filed a selection application on these lands, which again closed them to further entry and location under the general mining laws. During the time these lands were open to entry and location (six years), no new claims were staked in the watershed, except for four gold placer claims that were filed on an upper tributary of Timber Creek, outside the study area.

The Omar and Frost prospects have undergone regional exploration. As recently as 1992, the U.S. Geological Survey found further geochemical anomalies in the area. In the eight years between discovery and 1972 when the claims lapsed, 16 holes (2,700 feet of diamond-core drilling) were completed. In contrast, Cominco Alaska drilled more than 77 holes (over 30,000 feet of diamond-core drilling) over a 13-year period for confirmation prior to making the decision to develop Red Dog.

The drilling initiated on the Omar prospect is scanty by comparison and these properties are perhaps only three years into the 19-year development history identified by the Red Dog Mine development scenario. At Frost and Omar, no infrastructure has been developed and no financial backing commitments have been made. There is no airstrip on the properties.

Assuming the Red Dog development scenario, it would take approximately 11 more years for these properties to reach the decision point of whether to go to production. Once the decision to go to production is made and financial backing is found, infrastructure development would take another six years. At this point in the development of the Omar/Frost prospects, the probability of the properties ever developing into a producing mine is not known with any degree of assurance.

There are other properties, such as the Ruby Creek (Bornite) and the Arctic prospect, much farther advanced in this process. They could go into development sooner if aggressive investment and state assistance are provided for developing the infrastructure to get the concentrate to market. The Ruby Creek prospect, now owned by NANA, is probably within six years of production and the Arctic prospect is probably within 10 years of production. If these properties were developed, they would encourage renewed interest in development of the Omar and Frost prospects and would perhaps encourage development of access closer to these locations.

An assessment of energy and mineral resources potential was carried out by BLM, using the methodology prescribed in BLM Manual 3031 [35]. The oc-

currence potentials indicate there is little direct evidence for the presence of coal resources. Both the geologic environment and the inferred geologic processes indicate low potential for the accumulation of these resources. In addition, on the basis of conventional concepts regarding the origin and accumulation of oil and/or gas resources, the geologic environment, as presently known, and the inferred geologic processes indicate low potential for accumulation of such resources. The available data also provide indirect evidence to refute the possible existence of oil and gas resources within the study area.

3.6 Cultural resources

3.6.1 Archaeology

From an archaeological viewpoint, the most noteworthy characteristic of the Squirrel River watershed seems to be the absence or near-absence of significant cultural resources. Notwithstanding the relative proximity of rich and important sites such as Onion Portage and Cape Krusenstern, available evidence suggests that the Squirrel River is remarkable chiefly for the lack of prehistoric remains.

A total of 11 sites in the Squirrel River basin is known to archaeologists, according to the Alaska Heritage Resources Survey database, current as of March 1993. All of these are located outside of the study area, on the east side of the lower river, between Kiana and Klery Creek, on lands that have been conveyed to NANA. Three types of sites are represented in this total. The first are late prehistoric to early historic Inupiat settlements dating to the period from about 400 to 1800 AD. The village of Ekseavik, which was excavated by J. Louis Giddings in the 1940s, is the best known of this type of site. A second type consists of surface lithic artifacts of little diagnostic value. The third type of site is represented by stone alignments, such as tent rings or caches.

Although only limited inventory has been done in the basin, the relative absence of known sites is not strictly because of this. BLM cultural resource personnel conducted an extensive survey in the watershed in 1985, in an attempt to characterize the resources of the region. An attempt was made to survey all major topographic zones and to look at all major tributaries, as well as the main stem of the river. Combining this effort with previous work done in the region, we estimate that between 2.5 and 3 percent of the total basin has been examined for cultural resources. The entire catalog of materials discovered as a result of the 1985 survey consists of a single deteriorated historic structure, four isolated

flakes, and one isolated projectile point [50].

Results of the Squirrel River watershed inventory, when compared with other regions of the state where similar types of surveys have discovered numerous sites, lead to the conclusion that cultural resources are sparse in the area. Based on this information, it is reasonable to conclude that prehistoric materials are not likely to be an important part of the affected environment for the proposed action or any alternatives.

3.6.2 History

Before 1898, a small Native settlement was located at the mouth of the Squirrel River, at Kurriaq Slough near the current village of Kiana. The 1900 census figures listed 45 Natives inhabitants in the Squirrel River country at that time. A depot was established at the mouth of the Squirrel River in 1908 to supply prospectors exploring the area. In 1909, placer gold was discovered upstream on Klery Creek, a tributary of the Squirrel River. The depot, originally known as Squirrel City, became a village of 20 or more log cabins with a store and restaurant on the bluff. In 1910 it was renamed Kiana, the Kuuvanmiut name for the point of land across the river. With the discovery of gold, increasing numbers of Inupiat, as well as white people, settled in the area. The Native community known as Old Village or Katyaag, indicating the lower end of many channels, was located at the base of the hill where Kiana sits today [2, 51].

Over time, many of the miners married local Native women and many of their descendants still live in Kiana. These people have used the study area of the Squirrel River for several generations. However, little is left in the way of historic site material. With the possible exception of some prospecting, all historic mining activity appears to have been limited almost entirely to Klery and Timber Creeks, which are outside the areas proposed for wild and scenic river designation. The inability to find historic sites through the inventory work described above leads us to conclude that historical sites are not likely to be a significant part of the affected environment for the proposed action or any alternatives.

3.7 Subsistence

3.7.1 Traditional subsistence patterns

For generations, rural residents of northwest Alaska have depended primarily on subsistence activities for their livelihood, including fish seining; hunting for caribou, moose, bear, waterfowl and small game; trapping fur bearers; and gathering berries, greens, and timber [2]. Fish were the main subsistence resource available to the Kobuk River people, the Kuuvangmiut, at the turn of the century. Salmon and grayling were abundant in the Kobuk River, the lower Squirrel River, and its tributaries. Furbearer trapping became increasingly important during the 1920s as an opportunity to trade furs for goods and cash with the Kiana stores. Muskrat in particular were abundant on the Kobuk delta and the chief source of fur up until the 1940s. During the 1880s and through the early part of the twentieth century, caribou were scarce in the Kobuk River valley and the Kuuvangmiut traveled to the north to hunt caribou, Dall sheep, and brown bear. During summer, after setting up fish camps along the lower Kobuk River for their families, Kuuvangmiut men reportedly traveled by foot up the Squirrel River valley and then along the Omar River, crossing over the Baird Mountains into the Noatak River valley. Moose moved into northwest Alaska in the 1940s, and now provide a secondary source of meat, particularly if caribou are unavailable.

3.7.2 Modern subsistence patterns

While the patterns and intensity of subsistence activities have changed in recent times due to the availability of modern equipment and the integration of a cash economy, subsistence is still an important part of the rural resident's social, cultural and economic well-being. The complex social and economic relationship of subsistence and wage employment is discussed further in Section 3.8.

In spring, inland village harvest activities are typically focused on fishing through the ice and along open leads, and hunting migratory waterfowl and caribou. During summer, villagers intensify their fishing activities, setting seines and gill nets for salmon, whitefish and sheefish, in addition to hunting waterfowl and gathering berries and greens. In late August, villagers hunt moose and caribou, in addition to waterfowl, Dall sheep and bear. During the winter months, they fish for sheefish and burbot under the ice, and hunt a variety of wildlife, including ptarmigan, hares, caribou, moose, wolves, wolverine, and fox. Most hunting is done within close proximity of the village. Furs are primarily used or traded

locally in the Kotzebue Sound region for making parkas, mittens, caps and ruffs, and few are sold to outside fur markets. Sharing and exchanging resources occurs frequently among Kiana, Selawik, Noorvik, and Kotzebue residents due to kinship ties and close proximity to Kotzebue.

Today, a major difference between traditional and modern subsistence seasonal rounds is the availability of equipment such as snowmachines and outboard motors, which have increased the efficiency and success of subsistence hunting while minimizing the time required and allowing for harvest of wildlife over a greater distance. The number of people doing subsistence activities has increased as well. Another difference is the presence of caribou in the Kobuk River valley at present.

Caribou is the most important source of red meat and second only to fish as a major subsistence resource of inland villages. Caribou contributed the greatest proportion (24.4% of pounds harvested) to the overall harvest of Kotzebue residents in 1986, followed by bearded seal (19.0%) and salmon (18.4%) [16]. The Western Arctic Caribou Herd presently numbers more than 450,000 animals, and a large portion migrates through the lower Kobuk River valley during fall and spring. Current federal subsistence harvest regulations allow resident hunters to kill up to 15 caribou per day year-round. The liberal harvest limit allows hunters the flexibility to hunt caribou when and where they are available and to make adjustments in relation to weather, transportation, availability of other resources and employment. During fall, hunters travel primarily along major rivers by boat searching for caribou at common crossings, such as near the Hunt River and Onion Portage. In winter, word is passed among villages about the locations of caribou concentrations, and hunters travel to those sites by snowmachine or dog sled.

Local residents have expressed concerns that aircraft spook caribou and shift migrating groups away from hunters. Increasing use of the Squirrel River valley for sport hunting activities in the fall has led to an increase in aircraft overflights and landings on the river gravel bars. Studies have shown a direct correlation between altitude of light fixed-wing aircraft and the degree of caribou response [22, 7, 53, 27]. In general, a large majority of caribou ran or panicked in response to aircraft flying below 200 feet above ground level. Caribou were less responsive to aircraft flying above 200 feet above ground level. Above 500 feet above ground level, few or no reactions were observed. Other variables that affect caribou response levels to aircraft include season of the year, group size and composition, habitat type, ongoing activity, and previous experience with aircraft.

Caribou movements are affected by various environmental factors that are either unknown or uncontrollable. Caribou seem to be more sensitive to low over-

flights during summer calving or early winter cold weather, than during spring or fall migration. In summer, walking or trotting animals generally continued in the direction of their movement, but quickened their pace or broke into a run, depending on the altitude of the aircraft.

Individual caribou responding to low-flying aircraft by running and panicking may suffer physical injury and increased energy costs. However, it is not clearly understood whether aircraft disturbance can directly cause detrimental impacts on populations. Caribou may adapt to aircraft overflights, thus minimizing over time the potentially detrimental impacts of low-flying aircraft. Western Arctic caribou may be less tolerant of aircraft than caribou herds living near more populated areas or where industry has resulted in increased activity, such as Prudhoe Bay [49]. Valkenburg and Davis postulated that Western Arctic caribou were less tolerant to aircraft because they do not distinguish aircraft from snowmachines that are used for hunting; therefore, caribou perceive aircraft as an imminent threat [53].

3.7.3 Subsistence use areas in the Squirrel River study area

Subsistence activities occur at low levels throughout the Squirrel River watershed, relative to activities concentrated along the Kobuk River. Local users of the Squirrel River watershed come primarily from Kiana, Kotzebue, Noorvik, and Selawik [30, 43, 16]. Kotzebue residents travel widely to hunt, fish and gather wild resources, and some residents return to their home village [56, 16]. In 1986, an estimated 24.6% of Kotzebue residents visited another community for subsistence purposes, with Kiana visited most commonly (8.2% of total), primarily for caribou hunting [16]. Community mapping by Schroeder indicated that residents of Deering and Ambler may also use portions of the Squirrel River watershed for subsistence [43].

The most intensive subsistence activity is believed to occur primarily on land that has been conveyed or selected by NANA around Kiana and the lower reaches of the Squirrel River to its confluence with the Kobuk River. This land is not included in the proposed designation. Intensive subsistence activities were a key factor used to select land under the Native Allotment Act and Alaska Native Claims Settlement Act by Native individuals and corporations [30]. Native allotment claims were typically based on family or individual use of a site for camps or other purposes [2], and NANA selected land close to villages based on a history of uses, such as fishing, berry and fuelwood gathering, and hunting.

The fact that relatively few allotments were located in the upper Squirrel River corridor indicates a lack of specific interest in the upper reaches of the watershed.

However, several place names documented by Anderson [2], indicate its historical importance as a travel corridor or fishing area. In addition, there are eight Native allotments, used primarily for subsistence activities, within the study area. They are located at the mouths of both the North Fork and the Omar River where they join the Squirrel River.

3.8 Socio-economic conditions

3.8.1 Wage employment

The Squirrel River watershed and adjacent villages are in the Northwest Arctic Borough. Based on public input, the four communities most affected by the outcome of the Squirrel River designation decision are Kiana, Noorvik, Kotzebue, and Selawik. Pertinent census and employment figures have been compiled, generally on a Borough-wide basis, from the Hope Basin Socioeconomic Baseline Study, and are referenced as such [46].

Throughout most of the century, residents of the Northwest Arctic Borough depended almost exclusively on subsistence. The beginning of a new era of economic development and reliance on wage employment began shortly after the Alaska Native Claims Settlement Act was passed in 1970. Later, the Trans-Alaska Oil Pipeline was constructed, a state rural secondary school system was developed, state and federal agencies injected large amounts of money into rural communities, and the Native community became more involved in the control of rural governmental institutions. All of these actions provided increased opportunities for local people to find work that would provide them a steady wage.

Government administration and health care agencies presently employ the greatest number of people in the region. The public sector accounts for approximately 43% of all wage employment in the area, and services, including health care, add another 23% for a total of 66%. Another important regional employer is Red Dog Mine, which began operating in the late 1980s in a joint effort between NANA and Cominco Alaska and created economic opportunities for local residents. Priority is on hiring NANA shareholders. A management committee was established to oversee operations and address issues such as employment, job training, subsistence, and work schedules. The management of Red Dog demonstrates a distinctive approach to political, social and economic decisions that takes into consideration the unique heritage of local residents.

Despite opportunities to earn a good wage in the public and private sector, per

	1990 Population	Percentage under 18 years of age	Percentage unemployed	Per capita income
Kotzebue	2,751	39	13.1	$13,906
Kiana	385	48	27.4	$8,632
Noorvik	5311	46	17.5	$7,324
NAB[a]	6,113	43	14.0	$8,822
Alaska	550,043	31	8.8	$17,610

[a]Northern Arctic Borough.

Table 3.2: Population and employment information. *U.S. Department of Commerce, Bureau of the Census*

capita income of all communities in the Northwest Arctic Borough is still much lower than the state average, and the unemployment rate is higher (table 3.2). One factor is the continuing reliance on a subsistence lifestyle. Those people who rely on subsistence, and not are employed in a wage position are officially counted as unemployed, even though subsistence is an important component of economic well-being. Many jobs are temporary or seasonal and often conflict with traditional subsistence activities. Finally, the Borough has a relatively low average population age, with half the people under the age of 18. This results in a per-capita income distributed over a population not yet of working age. There is a high cost of living in northwestern Alaska. The Alaska Blue Book for 1993-94 reports food costs in Kotzebue to be 206% those in Anchorage.

3.8.2 Subsistence economics

Subsistence plays an integral role in the present-day economic organization of northwest Alaska villages. Subsistence products, though non-monetary, possess real cash value by freeing dollars for other purchases. The items purchased are often used directly to facilitate additional subsistence activities. Some of the most critical items needed by residents in the villages are guns, snowmachines, boats, boat motors, dog teams, nets, and other capital items used for harvesting desired food items. Because cash is needed to purchase these necessary items, the dilemma for rural residents is to balance the costs and opportunities of seeking one resource (food) against those of another (money). Wage earning is crucial to the villagers because it provides the means to buy the equipment and tools necessary for subsistence hunting and fishing, and to pay for housing and utility services in

the villages [2, 30]. Many residents of Kiana and other villages may go to Kotzebue, the Red Dog Mine, or other parts of Alaska during the summer to work in commercial fisheries, construction, or other seasonal jobs. Fighting wildfire is a fairly steady source of summer employment for trained crews in the village.

Subsistence is also important for deferring the high food prices in rural Alaska. One study reported that subsistence foods were an important part of meals eaten "yesterday" by 57.5% of all respondents. Furthermore, subsistence foods were an important part of meals eaten the day before yesterday for 65% of all respondents [45]. Frequent and consistent use of subsistence foods not only shows a preference for the resource, but may also indicate a dependence brought on, in part, by the exceptionally high cost of non-locally produced food and goods.

3.8.3 Recreation economics

The Squirrel River provides an opportunity for air taxi services and guides to generate local revenue. There are several air taxi companies and guides active in the area. Records kept by BLM give a rough indication of revenues collected by outfitters and guides operating in the area. As part of the special recreation permitting process, guides are required to pay BLM three percent of their gross revenue to recover the cost of issuing and administering permits. In 1993, BLM collected approximately $1,700 from nine commercial guides and outfitters. In addition to the revenue earned directly by the air-taxi companies and guides, other local businesses and individuals also benefit. Visitors spend money at local restaurants, grocery stores, and gift shops. Aviation companies support local fuel retailers, mechanics, hardware dealers, etc. These businesses, in turn, provide wholesalers with additional business, creating a "multiplier effect" that increases the effect of original purchases.

3.8.4 Mineral economics

As reported by the Division of Mineral Resources [6], part of the Squirrel River watershed outside of the area proposed for designation is identified as being geochemically favorable for the discovery of new mineral deposits. The most significant occurrences are base metal deposits including copper, zinc, barium, lead, and silver. In addition, placer-gold deposits occur within the Klery Creek/Timber Creek area. Between 1909 and 1931, an estimated 31,300 ounces of gold were produced from the site although little production has occurred more recently [8].

At present, further exploration is needed to determine the economic feasibility of mining any of the known occurrences. Economic potential is highly contingent on several variables that are susceptible to fluctuation and warrant careful consideration. Conditions that could change the economic potential include access, world energy prices, changing technology, mineral prices and political/economic climate. A discussion of the Red Dog Mine development scenario and those projected for the Squirrel River watershed is provided in section 3.5.

3.9 Wildlife

The Squirrel River valley, like other river systems in northwestern Alaska, provides important habitat for a diversity of wildlife. Animals traveling through, originating from, or residing year-round in the watershed are important for their intrinsic value, as well as for subsistence, sport and non-consumptive recreation values. However, the overall wildlife values of the Squirrel River are not deemed to be any more significant than other watersheds in the region. There are no known unique or unusually remarkable species or habitat types. Two bird species recorded in the Squirrel River area, the Harlequin duck (*Histrionicus histrionicus*) and the olive-sided flycatcher (*Contopis borealis*); and one mammal, the lynx (*Felis canadensis*), are listed as Species of Concern under the provisions of the Endangered Species Act, as amended. Big game species occurring in the Squirrel River valley include caribou (*Rangifer tarandus*), moose (*Alces alces*), Dall sheep (*Ovis dalli*), brown bear (*Ursus arctos*), and black bear (*U. americanus*). Small game and furbearer species include snowshoe hare (*Lepus americanus*), lynx (*Felis canadensis*), wolverine (*Gulo gulo*), gray wolf (*Canis lupis*), river otter (*Lutra canadensis*), beaver (*Castor canadensis*), red fox (*Vulpes fulva*), and arctic fox (*Alopex lagopus*). Various species of waterfowl, upland game birds, shorebirds, raptors and passerines also populate the Squirrel River valley.

Population and harvest data on game species were obtained from Alaska Department of Fish and Game survey and inventory management reports and harvest databases, unless otherwise cited. The Western Arctic Caribou Herd numbered over 415,000 animals in 1994, up from 140,000 animals in 1980. Based on the herd's prior history of large population fluctuations, the herd size is expected to level and subsequently crash to low numbers in the near future. The exact number of caribou residing in or migrating through the Squirrel River relative to other drainages is unknown, but these numbers vary between seasons and years. Small bands of caribou do remain in the Squirrel River during summer and win-

ter. During fall migration, caribou generally move between the Headwaters and the Agashashak, through the valley between the North Fork and Klery Creek, and cross the Kobuk River just west of Kiana. Trails braiding across the steep hillsides in the upper North Fork provide evidence of frequent caribou use. Caribou are important for both subsistence and sport hunters. Reported harvests for Game Management Unit 23 have averaged around 1,850 caribou since 1990, of which about 75% are taken by local hunters. However, it should be noted that Alaska Department of Fish and Game estimates that only 25% or less of actual harvest is reported.

The moose population residing in the Squirrel River valley and portions of the lower Kobuk River near Kiana was estimated to be approximately 1,000 to 1,600 animals, equivalent to a mean density of one moose per square mile [28]. Declines in moose have been observed for portions of the Seward Peninsula and Noatak River, indicating that the population in northwestern Alaska has peaked since moose moved into the area in the 1940s and may be entering a period of decline, or may be subject to episodic declines during severe winters. During summer and fall, many moose forage in upper-elevation stream drainages of the Squirrel River. During winter they migrate to the main Squirrel River valley and lower Kobuk River. Moose cows and calves are occasionally observed along the main stem of the Squirrel during summer, where they forage in dense willow thickets along the river and adjacent sloughs and lakes.

Lower elevation riparian and flood plain habitats provide crucial wintering areas for moose, as deep snow makes travel and foraging difficult and increases their vulnerability to predators. Moose are sought by both subsistence and sport hunters in the Squirrel River valley, and reported harvests ranged from zero to 19 moose, with a mean of nine, from 1983 to 1991. Reported harvests are less than 25% of actual harvest and less than 30% of harvest tickets specify location of kill [40]. Increased demand for trophy moose and the increase in guide and air transport services to hunt moose in the Squirrel River watershed has become a concern in relation to BLM's Special Recreation Permit issuance and subsistence management responsibilities. Declines in the ratio of bulls to cows, which may affect population productivity, have been observed in the nearby Noatak River drainage due to selective harvest of large bulls. Biologists will continue to monitor moose population trends in the Squirrel River watershed to detect whether similar declines occur as sport hunting pressure increases.

Dall sheep inhabit the higher elevation drainages of the Baird Mountains, with the main population occurring to the north of BLM lands in the Noatak National Preserve. Sheep in the Squirrel River watershed are believed to be transient and

dispersing animals from the main population, and numbers recorded on BLM-managed public lands have varied from a few to as many as 96 animals [40]. Sheep are not likely to occur in the lower elevation flood plain within the withdrawal study area since they prefer higher elevation alpine meadow habitats near rocky outcrops that provide escape cover. Significant declines and slow recovery in the Baird Mountains sheep population during several consecutive years have led to emergency hunting closures each year since July 1991. Severe winter weather conditions were the primary cause of the decline in the Baird Mountains, but other sheep population limiting factors include predation and possibly disease. Prior to the emergency hunting closures, sheep were sought by both subsistence and sport hunters in limited numbers.

Brown bear are fairly common in the Squirrel River watershed and may be observed along the main river, particularly during late summer and fall salmon runs when the bears feed on spawned salmon carcasses. During spring and summer, bears forage on plants, berries, small mammals, and carrion. Bears are harvested by sport and subsistence hunters, and a few are likely killed in defense of life and property. During the 1992-93 season, 10 brown bears were reportedly harvested under the subsistence registration hunt and 34 under the general hunting season in Game Management Unit 23.

The abundance of predator species, such as lynx, wolf, and red fox, fluctuates according to prey availability. The hare population cycle was apparently at its lowest ebb in 1994, as were lynx numbers, but they are expected to recover in the next few years. Harvest of fur bearers for sale and export is relatively low compared to other regions of Alaska. Pelts are also used for personal clothing and trim. Wolverine, wolf, and lynx are highly sought after by local trappers. No lynx were reported harvested in Game Management Unit 23 in 1990-91, in contrast to the 1981-82 harvest of 20 to 30 animals. Wolf numbers have remained stable or increased over the last few years. Wolf density was estimated in Game Management Unit 23 at 2.7 to 6.3 wolves per 1000 square kilometers [3]. Currently, the monetary value of pelts creates a high demand for wolves. Reported harvest was 68 wolves in 1989-90 and 44 in 1990-91 (up from three wolves in 1981-82), which represents about 10% of the estimated Game Management Unit 23 population harvested yearly. Although some wolves are trapped, most are shot during the winter months. Wolverines are most abundant in areas inaccessible to snowmachines or in remote untrapped areas. The present population status is unknown because of insufficient data. Reported harvest from the winter of 1990-91 was 27, a substantial increase from the two to three reported in 1981-82, which may represent greater snowmachine access, as most animals are shot or trapped from

snowmachines. Six of the above animals were taken from the Squirrel River area.

3.10 Vegetation

3.10.1 General description

The Squirrel River valley lies within the northern extension of boreal forest and straddles a broad transition zone from forested terrain to treeless tundra [20]. The northern limit of tree growth occurs about 44 miles north of the Squirrel River watershed. Tree line in the Squirrel River drainage approximately 1,250 feet [9]. The Squirrel River supports a wide variety of vegetation complexes, including alpine tundra, alpine shrubland, upland white spruce, tussock tundra, bottom land spruce/poplar forest, and on gravel bars and flood plains, semi-vegetated and tall willow units. Descriptions of vegetation types were gathered from four sources:

1. Research by Craighead *et al.* in the Squirrel and lower Kobuk and Selawik river valleys [9].

2. *The Alaska Vegetation Classification* [54].

3. *Alaska Regional Profiles, Northwest Section* [44].

4. Recent unpublished (1992-1996) BLM botanical inventories in the Squirrel River watershed.

The Squirrel River and its tributaries originate high on the snow-laden peaks southwest flank of the Baird Mountains. The headwater streams tumble through narrow valleys bordered by well-drained rocky slopes and benches. Low carpets of dry alpine tundra and moist tussock tundra are often dissected by discrete stands of white spruce and balsam poplar along drainages. Alpine tundra is a complicated mosaic of many different species of prostrate sub-shrubs, forbs, grasses, sedges, lichens, and mosses. Moist, north-facing slopes occasionally support a parkland of large, well-spaced alders with an understory of tussock tundra. A distinct line of alpine shrubland (alders and willows) sometimes occurs on hillsides between woodlands below and either alpine tundra or scree slopes above.

Forest communities in the Squirrel River are primarily open-canopied woodlands dominated by white spruce. White spruce will tolerate a wide range of conditions, but they grow best on well-drained soils of gentle, south-facing slopes and permafrost-free riverbank terraces. Middle through lower slopes of the Kiana

Hills show the most extensive coverage of the upland white spruce complex, although stands of white spruce are scattered throughout the watershed on favored upland and riparian sites. The upland white spruce complex has a diverse understory of shrubs, forbs, grasses, sedges, mosses, and lichens. Isolated rock outcrops in the uplands provide excellent lichen habitat, in addition to protected, moist niches for ferns and the more tender shrubs such as northern red currant.

Tussock tundra is the most widespread vegetation type in the Squirrel River basin. It occurs in relatively flat to gently sloping areas with impeded soil drainage. This complex is characterized by cottongrass, sedges, dwarf willows, dwarf birch, and ericaceous sub-shrubs such as Labrador tea, salmonberry, lingonberry, blueberry, and crowberry.

The bottomland spruce/poplar forest becomes conspicuous from the mouth of the North Fork downstream along the main stem of the Squirrel River to its confluence with the Kobuk River, and includes the lower reaches of the Omar River. This forest type favors well-drained riverbanks and terraces, and recently abandoned stream channels. Mixed in with the dominant white spruce are scattered stands and individuals of balsam poplar, paper birch, and black spruce. Willow, alder and tundra rose are common shrubs, while mosses and lichens, grasses, horsetail, and blueberry are frequent in the herb layer.

Gravel bars and floodplains thread their way throughout the Squirrel River watershed. The relatively shallow river gradient creates an abundance of braided stream channels. Plants are small and widely scattered on the unstable sand, gravel, and cobbles of these active river bars. Characteristic gravel bar plants along the Squirrel River (semi-vegetated complex) include young felt leaf willow, sedges, grasses, mountain avens, purple mountain saxifrage and tundra rose. Floodplains and floodplain terraces also experience frequent flooding and silt deposition, but occupy slightly higher ground than gravel bars. Individual willows are able to establish and persist, with a sparse understory of horsetail, mosses, grasses, aster, and wormwood (tall willow unit).

3.10.2 Timber resources

In spite of a short growing season, severe winters and permafrost, forest land does extend into the western Brooks Range and Squirrel River drainage. White spruce and paper birch are the two commercially important tree species found in the Squirrel River valley. Both are used extensively for firewood, while white spruce is favored for house logs, fish drying racks, and game observation towers. However, there is probably little commercial forest land within the Squirrel River

watershed. The U.S. Forest Service defines timberland as forest land that is capable of producing more than 20 cubic feet per acre per year of industrial wood in natural stands [39]. To put the figure of 20 cubic feet in perspective, a cord of wood measuring 4' x 4' x 8' equals 128 cubic feet. If this stack of wood was compressed to eliminate all air spaces, it would now be approximately 90 cubic feet.

Even though no timber surveys have been conducted in the Squirrel River, an intensive forest inventory by the U.S. Forest Service on the upper Koyukuk River near Bettles [18] offers a reasonable comparison. The two riparian units are comparable in size, each almost one million acres, and are situated at approximately similar latitudes above the arctic circle. The upper Koyukuk River has extensive white spruce forests, with stands of balsam poplar on riverbank terraces, and paper birch on some south-facing slopes, similar to forest lands in the Squirrel River drainage. Overall climates do differ somewhat. The Squirrel River valley is under maritime influence, whereas the upper Koyukuk valley has a strongly continental climate. The Forest Service study documented that forests with commercial potential occupied less than 5% of the inventory area. These timberlands were generally restricted to a narrow strip adjacent to stream channels.

3.10.3 Special status plants

No threatened or endangered plant species are known to occur in the Squirrel River watershed. Using the criteria developed for the Alaska Natural Heritage Program rare plant database and ranking system, three Special Status Species occur on BLM managed lands in the Squirrel River drainage. Populations of all three plants have been documented in the Squirrel River uplands, along two major south-flowing tributaries (North Fork and Home Route) to the main stem of the river.

Aster yukonensis is a low-growing member of the sunflower family (*Compositae*), with light purple flowers and narrow, clasping leaves. Scattered individuals grow in active flood plains and along thinly vegetated, low streambanks emptying into these floodplains.

Oxytropis arctica var. barnebyana is a rosette-forming member of the pea family (*Leguminosae*), with conspicuous cream-colored flowers. This species is found in several different habitats, including upper, less disturbed portions of active floodplains, moist riverbank terraces; and low, rocky cliff faces.

Rumex krausei is a slender, narrow-leaved member of the buckwheat family (*Polygonaceae*), occuring as scattered, or occasionally clumped, male and fe-

male individuals. Small populations inhabit wet sedge/forb tundra of terraces high above the river.

These Special Status Species were formerly classified by the U.S. Fish and Wildlife Service as Category 2, which indicated that further research was needed to assess biological vulnerability, taxonomy and/or threats. Plants that were assigned to this category were not being proposed for listing as either threatened or endangered. The Fish and Wildlife Service no longer uses this designation. Instead they refer to former Category 2 plants as "Species of Concern."

3.11 Water

3.11.1 Streamflow

The Squirrel River is a free-flowing, clear-water stream that drains an estimated 1,600-square-mile area. First-order headwater streams of the river are approximately 750 feet above sea level, and the confluence of the Squirrel and the Kobuk River is less than 100 feet above sea level. The river falls approximately 650 feet in less than 95 miles. Most of the gradient (approximately 550 feet) occurs along the first 15 miles of the river, resulting in a drop of about 40 feet per mile. The remaining 80 miles has a very low gradient of about two feet per mile. There are no notable rapids on the river.

There is very little streamflow data available for the Squirrel River area. Certain streamflow parameters can be estimated from equations derived from hydrologic data collected on other streams in Alaska. Applying such equations for a theoretical site near the mouth of the river yields an estimated mean annual flow of 1,508 cubic feet per second (cfs), a low flow of seven-day duration, 10-year recurrence of 117 cfs, a peak flow of 2-, 5- and 10-year reoccurrence intervals of 9,351 cfs, 13,949 cfs, and 17,921 cfs, respectively [37].

A few streamflow measurements have been made in the watershed as part of various agency studies. Of particular interest is a low flow measurement made by the U.S. Geological Survey on the Squirrel River near Kiana in March, 1980, of 28 cfs, which may indicate the flows predicted by theory are higher than the flows that actually occur [52]. While streamflow records for the Squirrel are limited, the U.S. Geological Survey has been collecting records for the Kobuk River above Kiana since 1976. Although these records are incomplete, they might prove valuable for future predictive or comparative analysis for the Squirrel River watershed.

The following observations of stream channel characteristics were made dur-

ing river float trips in August 1975 and 1982 by BLM employees. From about 10 miles below its source to the mouth of the North Fork, the river varies in width from 15 to 60 feet and in depth from one inch to eight feet, as it alternately flows across shallow gravel bars and through deep pools. The current velocity was about three feet per second (fps) at the surface. From the North Fork down to Klery Creek, the river meanders considerably in tight bends. The river becomes wider (100 to 150 feet) and deeper (from several inches to approximately 10 feet in pools). The velocity of the current in this area is about three fps. From Klery Creek to its confluence with the Kobuk River, the Squirrel River is about 200 feet in width and four feet in depth, with some deeper pools.

The two major tributaries to the Squirrel River are the North Fork and the Omar River. Near the mouth of the North Fork, the river bottom of the Squirrel River is composed of gravel one-half to two inches in diameter. About 20 to 25 miles above the Squirrel River mouth, the bottom substrate shifts to a mixture of smaller gravel (one-quarter to one inch in diameter) and sand. The percentage of sand increases downstream until the substrate, including the shoreline, is entirely sand and silt, with little or no gravel [47].

3.11.2 Water quality

Most visitors to the area remark on the color of the Squirrel River. People have described the color as emerald green or turquoise and have commented on its uniqueness in both color and clarity [47]. At most streamflows the water appears clear. During the summer of 1994, BLM personnel observed turbid conditions at flood stage, particularly below the North Fork. Except for the lower few miles where the silt bottom is stirred up by current, boaters can easily see the bottom of the river in its deepest pools at observed streamflows.

The water quality of the Squirrel River is presumably excellent, as the watershed is largely devoid of current and past human activity. Past mineral activity has been limited to placer mining in the Klery Creek and Timber Creek watersheds. Timber Creek, which enters the Squirrel River at the downstream limit of the study area, could possibly affect waters within the proposed designation. Mining on Timber Creek has been on a small scale, with less than an estimated 10 acres disturbed from mining conducted within recent years, including trails, camp and settling ponds. It is possible that mineral activity of this nature has resulted in some increased sediment loads over natural conditions. It is also possible that small petroleum spills have occurred. Further impacts from mining in the near future are considered very unlikely since the mining claims within the Timber Creek

area have been abandoned.

Other documented human activity in the study area is limited to subsistence and recreation, which is not expected to create any significant degradation of the water quality of the area.

Waters and water uses within the state of Alaska are protected under the Alaska Water Quality Standards[3]. Under these regulations, the Squirrel River is protected under use classes of "Water Supply," "Water Recreation," and the "Growth and Propagation of Fish, Shellfish, and other Aquatic Life," and "Wildlife." The most stringent criteria found within these three classes apply. These regulations also include procedures for individuals to petition the state of Alaska Department of Environmental Conservation to reclassify specific water bodies of the state. Reclassification can lead to less stringent water quality criteria for a specific water body. While some water samples have been collected, insufficient information is available on the existing water quality of the Squirrel River for any quantitative or qualitative analysis. The U.S. Geological Survey did collect limited field data on March 24, 1980 near the mouth of the river. They reported values of streamflow at 28 cfs, specific conductance of 330 μmhos/cm, a pH of 7.0 units, water temperature of 0.5 degrees Celsius, dissolved oxygen of 8.5 mg/l, and bi-carbonate alkalinity of 204 mg/l as HCO_3 [52].

Water samples were also taken by the Alaska Department of Fish and Game on two occasions in late winter and early spring of 1979 near the mouth of the Squirrel River. The chemical analysis of the sample taken in early spring revealed that the water is of drinking quality but probably not ideally suited for fish culture. For example, some of the observed concentrations in parts per million (with the recommended maximum levels for fish culture in parentheses) were aluminum 0.06 (0.01), chloride 71 (4.0), iron 0.27 (0.01), manganese 0.026 (0.01), sulfur 8.6 (1.0), and zinc 0.032 (.005) [47].

[3] 18 AAC 70, 12/89

Chapter 4

Environmental Consequences

4.1 Introduction

The Squirrel River has been under protective management for over 15 years. BLM's interim objective has been to protect any values that might make the Squirrel River a worthy addition to the national wild and scenic rivers system. BLM has, in general, managed the area as if it were already designated as a wild river area. Due to the remote nature of the river, and the low levels of human use, this protective management has caused few conflicts. None of the potentially incompatible land uses identified during scoping would likely take place within the next 15 years, based on our assessment of the available information. This combination—lack of competing land uses and the speculative nature of the land uses that may occur in the future—makes it difficult to come to definite conclusions on the effects the various alternatives might have on the human environment.

This chapter provides an analysis of the impacts of implementing each of the alternatives on the affected environment, based on the information available. The impacts predicted are based on the best available information at the time of writing, and on the following assumptions:

1. All management actions would comply with appropriate laws, regulations and policies.
2. Funding would be available to carry out the management actions described in Chapter 2.
3. If the Squirrel River were designated, a river management plan would be

written to identify more detailed management actions than are described in this document.

4. Direct effects are caused by the activity and occur at the same time and place. Indirect effects are caused by the activity but are later in time or farther removed in distance.

5. Professional judgment, based on observation and analysis of similar conditions and responses in similar areas, has been used to infer impacts where data are limited or unavailable.

6. If Alternative D, which results in no designation, were implemented, existing state land selections would attach and could be conveyed.

7. Based on information provided by the State of Alaska, existing state selections identified for potential transportation corridors within the Squirrel River study area would be used for the construction of the proposed transportation facilities and for community grant selections. However, it is unlikely that road construction would take place within the reasonably foreseeable future.

8. Public Land Order 5179, as amended, which withdrew lands in the Squirrel River drainage from all forms of appropriation (except Alaska Native Claims Settlement Act and state selections) would remain in effect on federal lands, whether or not the river is designated.

9. All acreage identified is approximate. Due to ongoing conveyances to NANA Regional Corporation and the State of Alaska, and boundary adjustments based on policy and legal descriptions, it is impossible to be precise. All acreage figures are based on the best information available to the environmental impact statement team.

One of the important differences between alternatives A, B and C is rooted in the distinction between wild river segments and scenic river segments, as defined by the Wild and Scenic Rivers Act. The differences between wild segments and scenic segments of a river within a designated corridor are primarily in the degree of access, development, and land use allowed. The Wild and Scenic Rivers Act describes a wild river area as, "...generally inaccessible except by trail, with watersheds or shorelines essentially primitive," whereas a scenic river area has, "...shorelines or watersheds still largely primitive and shorelines largely

undeveloped, but accessible in places by roads." The BLM Wild and Scenic Rivers Manual[32], and the interagency guidelines [48] establish management constraints for the two different designations that provide for generally more restrictive management of a wild segment than a scenic segment. However, much of this guidance is actually tempered in Alaska by specific legislation provided by Congress in the Alaska National Interest Lands Conservation Act.

The Alaska National Interest Lands Conservation Act, which identified the Squirrel for study for possible designation to the national wild and scenic rivers system, also included consideration of motorized access for subsistence purposes, acknowledgment of the limited road access and the need for more in Alaska, access for inholders, and other special conditions in the State. These considerations, as addressed in the Alaska National Interest Lands Conservation Act, alter management of wild and scenic rivers in Alaska, as compared to the other states. The guidance for management of such activities in these areas has not been clearly identified nor standardized throughout Alaska. This has caused local residents to worry about the effects of designation on their ongoing and future use of the Squirrel River area if it became part of the national system.

4.2 Impacts from implementing Alternative A: Designation of the Squirrel River as a component of the national wild and scenic rivers system to be managed by BLM as a *scenic river area*

Under this alternative, the Squirrel River, from the Big Bend down to NANA lands, the West Fork, and the Headwaters Fork are recommended for designation as a scenic component under the Wild and Scenic Rivers Act. A total of 99.6 river miles with an upland river corridor of no more than 63,744 acres would be designated.

4.2.1 Impacts on outstandingly remarkable river values

Impacts on the cultural heritage river value

The Inupiat, the Eskimo people of northwest Alaska, continue to use places and apply their knowledge of the natural resources in the Squirrel River watershed, just as they have for thousands of years. Designation of the Squirrel River as scenic would establish formal recognition of this cultural heritage value, because the cul-

tural heritage value is one of the "outstandingly remarkable values" identified in the alternatives that propose designation. Designation would require cooperation between BLM and the Native people in the region to identify these place names, associations, and cultural concerns. This cooperative process would include discussion of BLM management actions in the river corridor, identification of the impacts to resources identified as important to the Native culture and resolution of potential impacts to minimize effects. As a result, designation would help prevent adverse impacts to those values that are not formally addressed under existing legislation or policy but are considered important to people of the region.

However, protection or enhancement of the cultural heritage value could lead to conflict with future uses valued by the local people. During the scoping process, locals, particularly elders, identified the Squirrel River as a reservoir of resources that could be tapped in difficult times. Some forms of use, such as extensive development along the banks, could not be allowed while protecting other outstandingly remarkable values. It can be seen that a culture that is vibrant and evolving may place varying demands on the landscape in the future, and that some of these demands might be incompatible with scenic river management.

Conclusion: The effects of scenic designation would enhance the cultural heritage river value in the next 15 years. Beyond that, the Eskimo people of the area may feel constrained, or that their cultural and economic well-being is at risk, if designation restricts uses that become desirable in the future.

Impacts on the river value for fish

Some impact resulting from designation could be assumed on the basis that designation would lead to increased visitor use and that these users would harvest increasing numbers of fish. However, there is currently no supporting data to indicate that visitor increase would be significant, or greater than 5%. In addition, field observations by BLM biologists indicate that the current recreational users do not make substantial use of fish during river float trips, particularly in remote areas. Fish population monitoring by BLM would make data available to the Alaska Department of Fish and Game, which sets the harvest limits to protect fish populations, and could lead to the restriction of harvests by non-subsistence users. Management actions that would restrict recreation use on the river would also serve to protect riparian habitat and reduce harvest. Consequently, visitor use is not expected to result in significant impacts to the fish value.

Management actions, such as providing visitor information and education services, and monitoring of visitor use, would also protect the fishery value by edu-

cating the public about the fisheries and habitat values as well as how to maintain them.

Maintaining the scenic corridor in a near-natural setting through providing limited facilities and solitude would also help prevent adverse impacts to habitat and fisheries from visitor site development and use.

Scenic designation would preclude dam building, flood control or diversion, prevent mineral development, and limit road construction and surface development within the proposed corridor. Although the potential for these actions is low, their implementation would result in such impacts as disturbance to vegetation and soil with increased siltation.

Assuming that a small placer operation (less than five employees) was developed outside of the scenic corridor near the historic claim sites, it is conceivable that under certain operating conditions (for example, a large flood or extreme operator error) siltation or turbidity could impact the water quality of the designated portion of the river.

Development of the Frost, Omar, or Powdermilk prospects would not be visible from the extreme end of the scenic corridor on the Omar River and would not have direct impacts on water quality on the designated scenic portion of the river. This is because stream siltation and turbidity are not normally associated with this type of lode mining. There is always a potential for acid mine drainage from weathering of exposed sulfide minerals during mine development, but the abundance of basic ground waters associated with the Baird Group limestone could provide adequate neutralization. Adverse water quality impacts from acid mine drainage on the scenic corridor are therefore considered unlikely.

Conclusion: Scenic designation would maintain the outstandingly remarkable river value for fish, and foreclose few, if any, land uses related to fish.

Impacts on the recreation river value

Based on available information concerning other wild and scenic rivers designated in Alaska and elsewhere, a substantial increase in visitor use (greater than 5%) is not anticipated in the reasonably foreseeable future if this alternative is implemented.

The management actions under this alternative include monitoring visitor use for unacceptable increases that may result in impacts to these values. Management actions to issue or deny permits for commercial recreation activities, track visitor use, and manage habitat would restrict recreation use if such use was determined to adversely affect qualities such as solitude, abundance of good campsites, and

the near-pristine setting of the river and tributaries. The intention of such restrictions would be to maintain the recreational experience for users of the river, while protecting the other outstandingly remarkable river values.

Management actions under the scenic designation would preclude dam building, flood control or diversion; prevent mineral development, and limit road construction and surface development along the proposed corridor. Presently, the potential for such actions to occur is low. The elimination of such development would preclude adverse impacts to recreation-related resources such as disturbance of vegetation or increased siltation and turbid water resulting from such activities. This would protect existing recreation values such as the near-pristine setting of the river and tributaries, wildlife habitat, the abundance of good campsites, and good hunting and fishing opportunities for recreation purposes.

An increase in summer tourism could lead to increases in the demand for suppression of naturally ignited wildfires since they typically cause air quality, visibility, and air transport logistical problems. Fire is recognized as a natural ecosystem process that helps maintain a mosaic of different vegetation stands important for wildlife habitat. Humans also enjoy the long-term benefits of a natural fire regime, including rejuvenated crops of berries, dead snags for firewood, and scenic open vistas blanketed with fireweed interspersed among mature forest and tundra. Fire management under scenic designation would allow for the natural fire regime that could be perceived as a short-term adverse impact on recreation but would provide a long-term recreation benefit.

Conclusion: Scenic designation would maintain the outstandingly remarkable recreation river value. In order to protect the quality of the recreational experience available in the river area, some recreational uses, including commercial guiding, might be foreclosed in the future, although this is unlikely to occur within the next 15 years.

Impacts on the scenic river value

Scenic river designation would establish a Congressional mandate requiring implementation of management actions that would maintain a near-natural setting to protect the recognized values. Management actions under a scenic designation would preclude dam building, prevent mineral development, and limit, but not eliminate road construction and surface development along the proposed corridor. Limiting development would reduce adverse impacts resulting from such activities, including disturbance of vegetation or increased siltation that would impact the scenic values.

Assuming that a small placer operation (less than five employees) was developed outside the scenic corridor near the historic claim sites, it is conceivable that under certain operating conditions (for example, a large flood or extreme operator error), siltation or turbidity could impact the water quality of the designated portion of the river.

Development of the Frost, Omar, or Powdermilk prospects would not be visible from the extreme end of the scenic corridor on the Omar River and is not anticipated to have direct impacts on water quality on the designated scenic portion of the river. This is because stream siltation and turbidity are not normally associated with this type of lode mining. There is always a potential for acid mine drainage from weathering of exposed sulfide minerals during mine development, but the abundance of basic ground waters associated with the Baird Group limestone could provide adequate neutralization. Adverse water quality impacts from acid mine drainage on the scenic corridor are therefore considered unlikely.

Conclusion: Scenic designation would maintain the outstandingly remarkable scenic river value.

4.2.2 Impacts on land ownership and land use

There are approximately 33,080 acres of land identified for selection by the State of Alaska within the proposed corridor. Under this alternative, the land within the proposed corridor would remain unavailable for conveyance. The remaining state selections in the Squirrel River watershed outside the designation boundary would be available for conveyance. However, because the State is currently overselected, it would have to relinquish selected acreage somewhere else in Alaska if it chose to maintain its entitlement within the Squirrel River corridor in the designated area.

Since the State has identified a priority interest in the selections it has made within the proposed corridor, scenic designation can be construed at this time as having a direct adverse impact on state selections since corridor lands would not be available. Although this would be a direct adverse impact on the State of Alaska's selection and conveyance of lands, designation would not preclude transportation corridor construction or recreation, the State's identified purposes for selecting these lands. This is due to the provisions of the Alaska National Interest Lands Conservation Act Title XI.

The Northwest Arctic Borough has requested that the State consider 23,074 acres for municipal entitlements in the Squirrel River area, both inside and outside the designated boundary. To date, the Alaska Department of Natural Re-

sources has not received an application from the Northwest Arctic Borough, and so cannot consider conveyance of state-selected land to the Borough. If the State does receive the application from the Northwest Arctic Borough regarding municipal entitlements, it would have to consider whether it is in the State's interest to convey the requested lands to the applicant. If the State receives this application, and considers providing municipal entitlements from state-selected acreage, then designation would preclude potential conveyance of lands selected within the designated corridor and would adversely impact the Northwest Arctic Borough.

Conclusion: Scenic designation would foreclose conveyance of state selected land along the Squirrel River. It would inhibit, but not prohibit, development of transportation corridors identified by the State of Alaska.

4.2.3 Impacts on access and transportation

There are currently no roads, trails, bridges, other constructed forms of access, or rights-of-way within the study area. The State of Alaska has identified a potential need for transportation access to the Ambler Mining District via a corridor along the Squirrel River and a crossing near Kiana in its long-range planning documents. The proposed transportation corridor would extend from west of Bornite to Ambler, across the Squirrel River, and eventually to the Chukchi Sea and Point Lay links. The State has expressed concern that a scenic river designation would adversely impact the state's ability to construct such a route. In addition, a second set of state selections along the Omar and North Fork rivers were identified to provide access to areas of mineral potential on state-selected land in the northeast portion of the watershed outside the withdrawal [38].

Although proposed management actions by BLM and guidelines in the Alaska National Interest Lands Conservation Act and the Wild and Scenic Rivers Act would restrict new rights-of-way and transportation corridors to protect outstandingly remarkable river values, these rights-of-way and corridors would be approved if no reasonable alternative location existed and the need for access was demonstrated. The potential for development of this transportation corridor in the reasonably foreseeable future is low.

Designation of the Squirrel River would make the scenic river corridor a federally administered conservation system unit. Title XI of the Alaska National Interest Lands Conservation Act governs the procedure for any proposed access that would cross federal conservation system units in Alaska. Proposals for construction of transportation corridors within the scenic river corridor would require Title XI action.

The Title XI requirements associated with a scenic designation of the proposed corridor have been identified as an adverse impact by the State of Alaska since the state would need to meet the requirements for the National Environmental Policy Act analysis of potential impacts to outstandingly remarkable river values for any proposed right-of-way application. However, since this proposal would likely involve a larger transportation network that would cross other conservation system units in the area (national park or national wildlife refuge lands), Title XI actions would need to be initiated by the state in any case. Therefore, the additional requirements for Title XI actions within the corridor would be minimal when viewed within the larger framework of a transportation network. Since there have been no completed Title XI actions in the State of Alaska thus far, it is difficult to assess the costs of this adverse impact to the State.

Motorized use of vehicles under 2,000 pounds gross vehicle weight would be allowed and vehicles over 2,000 pounds gross vehicle weight would require a land-use authorization under the management actions for scenic designation within the corridor. Casual use with non-motorized, non-commercial access would be allowed as well.

Residents of northwest Alaska have repeatedly expressed the concern that it is critical for them to maintain access to the Squirrel River watershed for subsistence purposes. However, reasonable access, although permitted, should not adversely impact outstandingly remarkable river values, including the cultural heritage value. The proposed action to designate the Squirrel River corridor as scenic would not adversely impact subsistence users since the Alaska National Interest Lands Conservation Act ensures that rural residents engaged in subsistence activities shall have reasonable access to subsistence resources on public lands and the action does not change the current access status. In addition, protection or enhancement of the cultural heritage river values would ensure subsistence access, given current subsistence practices.

Holders of Native Allotments within the designated corridor have also expressed concern over maintaining access to their lands. The Alaska National Interest Lands Conservation Act and the Wild and Scenic Rivers Act protect reasonable access to such private lands and any designation would have to adjust its boundaries to provide this access. However, reasonable access, should not adversely impact outstandingly remarkable river values.

Impoundments, diversions, and riprapping are prohibited in a scenic river corridor. Continued freedom of access with traditionally used watercraft, snowmachines, and aircraft is protected. However, channel straightening and dredging is prohibited, which could result in making some forms of water access, which

might be proposed in the future, more difficult.

Conclusion: Scenic designation would not adversely impact existing transportation and access within the Squirrel River corridor because those uses are provided for by the management actions. Some potential access and transportation developments that have been proposed would be costly and complex to implement, but the scenic designation would not preclude some development in the future. It would make such developments more difficult to carry out. No ongoing access-related land uses would be foreclosed, although some types of access would be limited if use levels increase to the point where they affect river values. Current subsistence-related access would not be affected.

4.2.4 Impacts on mineral development

Scenic designation under the Wild and Scenic Rivers Act provides for mineral entry and location subject to existing regulations within the designated corridor. However, under the scenic designation scenario proposed in Alternative A, the corridor would be closed to mineral entry and location. This is not a change from the existing situation since the lands have been withdrawn from mineral entry and location of new mining claims since 1972 by Public Land Order 5179, and by the Wild and Scenic Rivers Act Sec. 9(a) (iii), and will continue to remain withdrawn by the decision record of the Seward 1008 Study, except where State selections are transferred to State management.

There are active gold placer claims on Timber and Klery Creeks, outside of the study area. There are no existing or historic claims within the proposed scenic river corridor. Consequently, there would be no direct adverse impacts on existing mining. The scenic river corridor would continue to be closed to mineral entry, mineral leasing, and mineral material disposal, so filing of new claims and exploration under the mining laws would be foreclosed, although such activities are unlikely given the history of mineral exploration and development in the area. Prospectors undoubtedly covered the Squirrel River watershed when the deposits on Klery Creek were discovered in 1909. Consequently, the lack of historic development of placer deposits within the proposed corridor is indicative that economic quantities of placer gold are not likely to be present there.

There are no identified coal or other leasable mineral reserves in the scenic corridor, and the potential for oil and gas development is considered low. Therefore, designation would have no indirect adverse impacts on leasable or fluid mineral development in the area.

Despite the lack of identified mineral potential within the proposed corridor,

there is mineral potential identified at the Frost and Omar prospects in the northeast area of the watershed in the headwaters of the North Fork and Omar rivers. Although this area is not directly impacted and it is on state-selected lands, scenic designation of the Squirrel River could discourage mining interest in this area. Due to the financial commitment, the mineral industry needs assurance on long-term land status and access prior to continuing exploration and making a commitment to develop, particularly where other factors are not as favorable as at Red Dog. This is why exploration and claim locations have not been maintained in the area. There may be potential future conflicts with mine development adjacent to a national wild and scenic river system component, as well as actual development of access through the corridor, although neither of these would be precluded under the proposed action. These are long-term indirect adverse impacts to mining development in the watershed.

Conclusion: Scenic designation of the Squirrel River would have no direct adverse impacts to placer or lode mining interests on federal lands since there are no active mining claims within the withdrawal boundaries. The best available information indicates that placer and lode prospects within the corridor are low. In addition, the mineral withdrawal established under Public Land Order 5179 would remain in effect regardless of designation. Designation itself would not directly impact the operation of potential mineral developments outside of the proposed corridor, although it would have an indirect adverse impact by adding to the cost and uncertainty of developing properties outside of the corridor.

4.2.5 Impacts on subsistence

Despite changes in subsistence activities in recent times due to the availability of modern equipment and the integration of a cash economy, subsistence is still an integral part of rural Alaska's social, cultural and economic well-being. Subsistence occurs at low levels throughout the Squirrel River watershed relative to activities concentrated along the Kobuk River. Users are primarily from Kiana, Kotzebue, Noorvik, and Selawik and most of the use takes place in the lower part of the watershed, outside of the study area. The Squirrel River watershed is primarily important because it provides habitat for species that use the watershed seasonally (such as caribou, moose, and chum salmon) and are essential to the subsistence economy.

The proposed action to designate the Squirrel River and the lower portions of its tributaries within the withdrawal as scenic would provide long-term federal management of public lands within the proposed scenic corridor, which would al-

low a rural preference for the taking of wild resources as provided for by Title VIII of the Alaska National Interest Lands Conservation Act. Under the management actions concerning harvest limits, should it become necessary to restrict the taking of resources to protect certain animal populations, local rural residents would be given preference over non-rural Alaska residents and nonresidents to allow for the continuation of subsistence uses within the corridor.

Designation of the Squirrel River as scenic would also provide greater emphasis on the management of fish and wildlife populations in the Squirrel River watershed. This designation would require a river management plan that would identify strategies for protecting and maintaining the river's outstandingly remarkable river values, one of which is fish. Increased efforts to inventory and monitor fish and wildlife populations and their habitats would provide essential data to help managers made good decisions regarding the management and conservation of these resources; and subsequently, to ensure the opportunity for the continuation of a subsistence lifestyle.

Limited levels of non-local visitor use could increase on the Squirrel River as a result of designation. Summer subsistence activities occur primarily on private lands along the lower Squirrel River outside the proposed designation, and involve primarily plant and berry gathering and fishing. Although interactions between river recreationists and local residents would probably be minimal, potential conflicts would be minimized through management actions to improve public education and information to increase the visitors' awareness about private lands and local activities. Designation of the Squirrel River as scenic would provide managers with greater flexibility to regulate use and access of the river corridor to protect the outstandingly remarkable river values. In addition, management actions such as monitoring recreational use of the river, and possible restrictions on that use if outstandingly remarkable river values are adversely impacted, would also serve to mitigate potential adverse impacts to subsistence users.

Reported increases in sport hunting activity within the Squirrel River watershed in the last few years may be a result of recent management actions in adjacent areas, such as the Noatak Controlled Use Area and closure of airstrips on NANA lands. This has not been substantiated, however [10]. This activity, if it is occurring, is not related to possible designation of the Squirrel River corridor. Local residents of Kiana and Kotzebue have expressed concerns over the impact of increasing sport hunting activities on wildlife populations and on their subsistence uses of those populations. These concerns can be addressed under provisions of existing state and federal laws and regulations for the taking of wildlife, which would not be affected by the proposed action. In addition, a scenic designation

would allow for visitor-use restrictions, through proposed management actions, if necessary to protect outstandingly remarkable river values.

Management actions for new rights-of-way and transportation corridors would only be approved within the proposed corridor when no reasonable alternative location existed. Mitigation under the NEPA analysis would also protect the outstandingly remarkable river values. Construction of impoundments, diversions, and other modifications of the waterway would be prohibited. The proposed corridor would still be closed to mineral entry, mineral leasing, and mineral material disposal.

Motorized access by snowmachine, motorboat and airplane, as provided for by Title VIII of the Alaska National Interest Lands Conservation Act, would continue to be allowed in the river corridor under a scenic designation. Motorized use of vehicles under 2,000 pounds gross vehicle weight would be allowed and vehicles over 2,000 pounds gross vehicle weight would require a land use authorization under the management actions for scenic designation within the corridor. Casual use (non-motorized, non-commercial) access is allowed as well. This would provide continued opportunities for subsistence users to reach the Squirrel River watershed for traditional activities and travel to villages and Native allotments.

810(a) Evaluation and Finding Summary

The analysis required by Section 810(a) of the Alaska National Interest Lands Conservation Act is found in Appendix A. The 810 analysis found this alternative would not significantly reduce subsistence resources or harvester access. This alternative will not result in a significant restriction on subsistence uses and needs.

Conclusion: Scenic designation would have a direct beneficial impact enhancing subsistence since designation would provide long-term federal management of the proposed corridor, which would ensure a rural preference for local rural subsistence users. An indirect beneficial impact to subsistence from designation would come from greater emphasis on monitoring of fish and wildlife populations in the area, which would result in sound decisions regarding the management and conservation of these resources. Another indirect beneficial impact on subsistence resources would result from habitat preservation by limiting development under the scenic designation.

4.2.6 Impacts on socio-economic conditions

As described in Chapter 3, average per capita income in the Northwest Arctic Borough is about $8,822, with 14 percent of the labor force unemployed. The economy is still largely dependent on subsistence. Government jobs and subsidies provide the largest portion of cash income to the region.

Scenic designation would provide long-term federal management of public lands within the proposed scenic corridor. This would continue a rural preference for the taking of wild resources as provided for by Title VIII of the Alaska National Interest Lands Conservation Act. This would be beneficial for the local subsistence-based economy.

Management action would restrict non-subsistence harvests if these harvests adversely impacted subsistence resources. Recreation permits and recreational use would be monitored and reduced if necessary to control adverse impacts on subsistence that could occur from increased visitor use in the future.

However, an increase in visitors may benefit some people in the local economy in the long run if the demand for air taxis, guides, and related services increase. Some of these beneficial impacts would be realized by members of the local communities, as well as commercial operators in the Kotzebue area. The demands from a hunting and fishing or eco-tourism industry would require maintenance of the existing wildlife population and habitat and outstandingly remarkable river values of fish, recreation, and scenery under the scenic river designation.

As discussed in section 4.2.4, there would be no direct impact to mineral development under this alternative, and therefore to potential mineral-related social and economic conditions in the area, because no known deposits or history of mining exist within the designated corridor. Designation may indirectly discourage mineral development in the larger Squirrel River watershed, but would not directly affect it by preventing access through the corridor or denying mineral development in the watershed outside the corridor.

The impacts of development opportunities that might be restricted under this alternative are nearly impossible to quantify. Local residents are nervous about potential designation, and have misgivings about commitments from the federal government to support their culture and use of the area. At scoping meetings, anecdotal evidence was presented of management restrictions in other federally managed areas nearby that were seen to be limiting local uses to the detriment of the socio-economic well-being of the residents.

Conclusion: Scenic designation of the Squirrel River would enhance the economic conditions of people in northwest Alaska over the next 15 years by provid-

ing increased government spending and maintaining the rural subsistence priority. Some opportunities for economic development might be foreclosed in the future if visitor use were limited to protect subsistence use or river values, or if designation had a negative effect on mineral development subsequent to changing market conditions. Subsistence use by rural residents would continue to be given priority, and lifestyles related to traditional land uses would be protected, benefiting traditional social values. Eco-tourism could provide some potential for economic benefit in the future.

4.2.7 Impacts on wildlife

Impacts on wildlife resulting from development can be classified into two general categories:

1. Impacts resulting from increased human use of the area.

2. Impacts resulting from different levels of surface-disturbing activities, such as road construction or mineral development.

Increased human presence could have adverse impacts on wildlife. For example, animals that normally forage along the river corridor during the summer would move to other areas if the presence of additional humans, boats, or planes disturbed them. Another adverse impact would result if additional river visitors over-use the supply of dead trees along the corridor for firewood. Snags are important habitat for cavity nesting birds such as woodpeckers, as well as other animals, and are not in great abundance along the Squirrel River. Bears would also be impacted because they use the river preferentially at times, and some bears would likely be destroyed to protect human life. However, visitation would have to increase dramatically for these impacts to be noticeable, and this is unlikely to occur in the next 10 to 15 years. If increased visitation resulted from designation, it would probably be by non-consumptive users, such as rafters, rather than hunters, so little direct impact on big game populations from this action is anticipated.

Fall sport hunting activities have increased in the Squirrel River in the last few years as more non-local hunters seek quality hunting experiences in remote parts of Alaska. It is anticipated that sport hunting will increase regardless of the designation of the Squirrel River as a component of the national wild and scenic rivers system. Impacts from such use would be addressed under provisions of existing state and federal laws and regulations for the taking of wildlife, which would not

be affected by the proposed action. A scenic designation would allow for implementation of visitor-use restrictions, through management actions, if necessary to protect outstandingly remarkable river values. These would provide for additional wildlife protection.

Developments in general have an adverse impact on most species of wildlife by displacing them from habitat. Any transportation system within the Squirrel River corridor would increase hunting pressure on game species such as moose, caribou, and bears. Alternative A would provide more protection to wildlife habitat from developments through protection of the outstandingly remarkable river values, although BLM guidelines for scenic river management would not exclude development entirely.

Conclusion: Scenic designation would protect wildlife resources in the Squirrel River area. Increased data collection efforts and law enforcement activities could also help wildlife resources if harvester effort changes or population levels change.

4.3 Impacts from implementing Alternative B: Designation of the Squirrel River as a component of the national wild and scenic rivers system, to be managed by BLM as a *wild river area*

Wild designation is more limiting on development along the stream than scenic designation. The impacts from Alternative B, which includes the potential to designate a larger portion of the watershed than the other alternatives, could allow for more careful scrutiny and management of the outstandingly remarkable river values. The analysis that follows consists of a summary of the *additional* protection offered by the wild designation alternative, in comparison to the scenic management impacts described in alternative A.

Much of the additional acreage identified for inclusion in this alternative is outside the existing protective withdrawal. This acreage is largely state-selected and would still be available for conveyance unless the state relinquishes the selections.

4.3.1 Impacts on outstandingly remarkable river values

Impacts on the cultural heritage river value

Designation of the Squirrel River as wild would establish formal recognition of the cultural heritage value for 63,744 acres of land, with the potential for adding up to 88,824 acres if the state drops certain land selections. Recognition of this cultural heritage value would require cooperation between BLM and the Native people in the region to identify these place names, associations, and cultural concerns. This cooperative process would prevent adverse impacts to resources identified as important to the Native culture in the area.

Conclusion: Of all alternatives, wild designation potentially provides the greatest protection for the cultural heritage river value, because it could create a mandate for protection and enhancement of this outstandingly remarkable value on the largest area (in the event land is added due to dropped state selections). But this is very uncertain, because it assumes the State might drop some land selections along the tributaries—something the current Alaska administration says it does not intend to do, particularly if dropping selections would lead to additional designated acreage. At the least, the protection given the cultural heritage value would be the same as under alternatives A and C.

Impacts on the river value for fish

Wild designation would have a beneficial impact through identification and protection of the outstandingly remarkable fish value in the Squirrel River and the upper tributaries of the watershed. In addition, there is some potential for additional protection on the Home Route, North Fork, and Omar River, if the State drops land selections along some of these streams. Since the fishery is recognized as an outstandingly remarkable value, federal actions that would have foreseeable negative impacts on fish would be prohibited. Streamside developments that might contribute to erosion or pollution would generally be prohibited, although Title XI of the Alaska National Interest Lands Conservation Act does provide for development of access routes through the corridor where there is no feasible alternative.

Conclusion: Of all alternatives, wild designation potentially provides the greatest protection for fish resources, because it could create a mandate for protection and enhancement of those resources on the largest area. But, this is very uncertain, because it assumes the State might drop some land selections along the tributaries—something the current Alaska administration says it does not intend

to do. Land uses that would negatively impact the river value for fish would generally be foreclosed in the designated area.

Impacts on the recreation river value

Designation of 63,744 acres of the Squirrel River uplands as a wild river area would preserve recreation qualities now available on the river by greatly limiting potential development impacts within the wild river corridor. An additional 88,824 acres could be designated in the future if the State were to drop land selections along the Home Route, North Fork, and the Omar River. A wild designation establishes a congressional mandate to maintain the primitive setting of the area. This would provide a beneficial impact for existing recreational uses because they would be recognized as one of the outstandingly remarkable values. Federal actions with foreseeable negative impacts to the existing recreation values would generally be foreclosed.

Conclusion: Of all alternatives, wild designation potentially provides the greatest protection for recreation values, because it could create a mandate for protection and enhancement of those resources on the largest area. But this is very uncertain, because it assumes the State might drop some land selections along the tributaries—something the current Alaska administration says it does not intend to do. Land uses important to the river value for recreation would be enhanced in general. However, some recreational uses might be foreclosed in the future to protect the cultural heritage river value, subsistence use, or the current opportunities for recreation in a relatively undisturbed environment.

Impacts on the scenic river value

Designation of the river as wild would prevent adverse impacts on the scenic value because inappropriate development would be discouraged or modified to protect this outstandingly remarkable river value within the 63,744 acre corridor. A wild river designation establishes a Congressional mandate to maintain a near-natural setting in the watershed, thereby preserving the scenic value and the other resources that contribute to that value.

Conclusion: Of all alternatives, wild designation provides the greatest protection for scenic river values, because it creates a mandate to preserve the existing primitive character of the river area. Land uses important to the scenic river value would be enhanced. Land uses in conflict with these values would be limited or foreclosed.

4.3.2 Impacts on land ownership and land use

This designation would directly impact the State of Alaska since the land within the wild river corridor would remain unavailable for conveyance, and the state has selected lands within the proposed corridor for transportation purposes. If the state were to drop its selections along the Home Route, North Fork, or the Omar River, those segments would be added to the designation, further limiting, but not prohibiting, the potential for road development. However, it is not known at this time whether the State would give up its interest in some or all of the selected lands within the Squirrel River watershed due to over-selection of acreage. In addition, the state would not have the direct role in reviewing land use authorizations under a wild designation, which it would have if the no designation alternative was selected, at least during the interim period before actual conveyance of selected lands took place.

The Northwest Arctic Borough would be adversely impacted by designation of a wild river corridor, if a future application by Northwest Arctic Borough to the State of Alaska requesting municipal entitlements included lands selected by the state within the corridor. These lands would not be available for conveyance after designation, if the State relinquishes existing selection rights. However, no application by the Northwest Arctic Borough has been submitted to the state at this time.

Conclusion: Wild designation would have adverse impacts to the State of Alaska in terms of state-selection and conveyance of land in the designated corridor. The potential for additional designations if the state were to drop certain land selections could further limit road development in corridors identified previously by the state. There would also be limits on municipal entitlement conveyances from the state to the Northwest Arctic Borough. Some land uses, particularly road construction and streamside development, would be limited—but not foreclosed—due to the provisions of Title XI of the Alaska National Interest Lands Conservation Act.

4.3.3 Impacts on access and transportation

State selections exist along the Omar River and the North Fork to provide access to areas of mineral potential on state-selected land in the northeast portion of the watershed outside the withdrawal. However, the riverbottom areas that would be part of the designated river corridor may not be the best locations for road construction, and the cost of road construction in the area may preclude construction

for many years.

Although proposed management actions by BLM and guidelines in the Alaska National Interest Lands Conservation Act and the Wild and Scenic Rivers Act would restrict new rights-of-way and transportation corridors to protect outstandingly remarkable river values, these rights-of-way and corridors would be approved if no reasonable alternative location existed and the need for access was demonstrated. In effect, the wild designation would not preclude road development within the wild corridor, although it would be discouraged. This alternative would not prohibit future access to the Ambler Mining District or to other mineral prospects in the area but it would require more careful consideration of rights-of-way location and construction.

Under designation, a federal conservation system unit would be created and any proposals for access crossing the unit would require conformance with Title XI provisions of the Alaska National Interest Lands Conservation Act. The applicant would add the Squirrel River unit to the other required Title XI applications.

This alternative to designate the Squirrel River corridor as wild would not adversely impact access for subsistence users since the Alaska National Interest Lands Conservation Act guarantees that rural residents engaged in subsistence activities shall have reasonable access to subsistence resources on public lands. The wild designation would ensure subsistence access rights over the greatest extent of the watershed, if it were retained under federal management.

Neither access for subsistence use nor access to Native Allotments in the wild corridor under this alternative would be adversely impacted as long as such access was reasonable and did not adversely affect outstandingly remarkable river values. Both rights of access are addressed under applicable state and federal law. No impacts to the state of Alaska's rights concerning navigability access and transportation are identified at this time.

Conclusion: Wild designation would have some adverse impact on the state of Alaska's desire to create transportation corridors in the Squirrel River drainage, but would not foreclose such plans. Some forms of transportation and access, particularly road construction and streamside development, would be limited—but the provisions of Title XI of the Alaska National Interest Lands Conservation Act provide mechanisms to allow access development when no feasible alternatives exist.

4.3.4 Impacts on mineral development

A wild designation of the Squirrel River would have no identifiable direct adverse impacts to placer or lode mining interests on federal lands since the land has been withdrawn from mineral entry and location since 1972 by Public Land Order 5179. There are no mines or mining claims within the existing corridor. In addition, the best available information indicates that placer and lode prospects within the corridor do not exist. Potential development of placer or lode prospects in the headwaters of the drainage, and other areas outside the corridor, is anticipated to have few, if any, adverse water quality impacts on the designated section of river. Designation itself would not directly affect the operation of potential mineral developments outside of the wild corridor but it would have an indirect impact by discouraging development through more strictly regulated access.

State-selected lands that are conveyed would not be adversely impacted since they would be open to mineral entry under state law. However, these lands could be indirectly impacted due to industry concerns that a nearby wild river could increase development costs.

Conclusion: Wild designation of the Squirrel River would have no direct adverse impacts to placer or lode mining interests on federal land since there are no active mining claims within the withdrawal boundaries. The best available information indicates that placer and lode prospects within the corridor are few. In addition, the mineral withdrawal established under Public Land Order 5179 would remain in effect regardless of designation. Designation itself would not foreclose the development of potential mineral developments outside the proposed corridor, although it would have an indirect adverse impact by making access more complicated to develop and increasing investor uncertainty.

4.3.5 Impacts on subsistence

Under this alternative, designation of the Squirrel River and much of its tributaries as wild would provide long-term federal management of public land within the larger wild corridor. This would continue a rural preference for the taking of wild resources as provided for by Title VIII of the Alaska National Interest Lands Conservation Act.

Designation of the Squirrel River as wild would provide managers with greater flexibility to regulate use and access of the river corridor to protect the outstandingly remarkable river values in an additional portion of the watershed. In addition, management actions regarding monitoring of recreational use of the river,

and possible restrictions on that use if outstandingly remarkable river values are adversely impacted, would also serve to mitigate adverse impacts to subsistence users.

New rights-of-way and transportation corridors would be approved within the proposed corridor only when no reasonable alternative location existed, in order to protect the outstandingly remarkable river values. Construction of impoundments, diversions, and other modifications of the waterway would be prohibited. Additionally, the wild corridor would still be closed to mineral entry, mineral leasing, and mineral material disposal. Management actions would provide for added protection of fish, wildlife, and vegetative resources that may be utilized for subsistence purposes. As a result, a wild designation would provide for the greatest habitat preservation, and therefore provide another beneficial impact on subsistence activities within the designated wild corridor.

810(a) Evaluation and Finding Summary

The analysis required by Section 810(a) of the Alaska National Interest Lands Conservation Act is found in Appendix A. The 810 analysis found this alternative would not significantly reduce subsistence resources or harvester access. This alternative would not result in a significant restriction on subsistence uses and needs.

Conclusion: Of all the alternatives, wild designation would potentially have the greatest beneficial impact on subsistence. But, this is very uncertain, because it assumes the state might drop some land selections along the tributaries—something the current Alaska administration says it does not intend to do. Designation would provide long-term federal management of the proposed corridor—ensuring a preference for local rural subsistence users on the largest area. An indirect beneficial impact to subsistence from designation would be realized through greater emphasis on monitoring of fish and wildlife populations in the area, which would result in sound decisions regarding the management and conservation of these resources. An indirect beneficial impact on subsistence resources would result from habitat preservation by limits placed on development along the river.

4.3.6 Impacts on socio-economic conditions

The impacts of wild designation on social and economic conditions would be nearly the same as under scenic designation (Alternative A). Under wild designation there would be more limits placed on streamside developments. Road

building could be allowed if there were no feasible alternative, which would limit adverse effects on economic development in the future.

Designation as wild would have both beneficial and adverse impacts on the social and economic conditions of the Squirrel River area, depending on whether visitor use actually increases, and how this use would impact both the available wildlife resources in the area and local vendors. Management actions that would restrict non-subsistence harvests would mitigate adverse impacts on subsistence users in the area. However, the potential to discourage mineral development in the watershed may have an adverse impact on the economic base of the immediate region. Because wild designation is the most restrictive to streamside development and road building, this alternative would be more discouraging to mineral developers than the other alternatives.

Conclusion: Wild designation of the Squirrel River could enhance the social and economic conditions of people in northwest Alaska in the near term. Subsistence use by rural residents would continue to be given priority, and life styles related to traditional land uses would be protected, benefiting traditional social values. Eco-tourism could provide some potential for economic benefit in the future. Some opportunities for economic development might be foreclosed in the future if visitor use were limited to protect subsistence use or river values, or if the wage economy were to develop more slowly as a result of additional requirements for development activities.

4.3.7 Impacts on wildlife

This alternative for designation of the Squirrel River and its upper tributaries as wild would provide the most protection for wildlife and wildlife habitat over the greatest amount of acreage. This alternative would designate 63,744 acres initially, but could designate as much as 88,824 additional acres if the state chooses to reduce its existing selections along the Home Route, North Fork, and the Omar River. It would also provide the most control over development that would disrupt habitat or improve access for human harvest of wildlife under the BLM guidelines for wild river management. Appropriate restrictions on consumptive use of wildlife and habitat resources would mitigate impacts that might occur from a moderate increase in visitation which would result from designation.

Conclusion: Wild designation would protect wildlife habitat and enhance wildlife management in the Squirrel River area.

4.4 Impacts From implementing Alternative C: Designation of the upper portion of the Squirrel River as a component of the national wild and scenic rivers system, to be managed by BLM as a *wild river area*; and, designation of the lower portion of the Squirrel River, to be managed by BLM as a *scenic river area*

The major difference between the wild and scenic segments of the designated river under this alternative would be that the lower scenic segment would allow for rights-of-way and road, bridge, or trail construction along the river, while the upper wild segment would discourage any rights-of-way or road construction unless unavoidable. This would allow for a more primitive and natural setting in the wild segment of the Squirrel River corridor than in the scenic segment, and limit adverse effects on socio-economic conditions.

Most of the general effects of designation as wild or scenic have been described under alternatives B and A respectively.

4.4.1 Impacts on outstandingly remarkable river values

Impacts on the cultural heritage river value

Designation of the Squirrel River as wild and scenic would establish the cultural heritage value on approximately 63,744 acres within the corridor. Management of the two differing segments would basically be the same with respect to this value and would require cooperation with the Native cultures to ensure protection of the value, as described in Sections 4.2 and 4.3

Conclusion: The effects of a combination wild and scenic designation would enhance the outstandingly remarkable cultural heritage river value in the next 15 years. Beyond that the Eskimo people of the area may feel constrained, or that their cultural and economic well-being is at risk, if designation restricts uses that become desirable in the future.

Impacts on the river value for fish

Designation of the Squirrel River as wild and scenic would establish the fisheries resources of the area as river values to be considered and protected in federal

management actions. BLM would restrict recreational use of the river if outstandingly remarkable river values were threatened. The wild segment would receive a higher degree of protection for the fish value under BLM management guidelines because wild river segments have more restrictions on rights-of-way, road construction, and development. Management standards for the scenic segment would be more lenient, and would allow for easier road construction and development.

Conclusion: A combination of wild and scenic designation would provide the greatest protection of the fish value in the wild upper river and provide slightly less protection on the scenic lower river.

Impacts on the recreation river value

Designation of the Squirrel River as wild and scenic would provide a beneficial impact by preserving recreation qualities now available on the river and limiting potential development impacts within the corridor. The wild segment would provide a higher degree of protection for the recreation value under the BLM management guidelines with its more restrictive consideration of rights-of-way, road construction, and development than the scenic segment. But the scenic segment, by being more lenient in allowing for access construction and development may be more accommodating of access for other recreation users in a less primitive setting.

Conclusion: A combination of wild and scenic designation enhances recreational use. This alternative would provide wilder more remote recreational opportunities in the upper river, and less primitive opportunities in the lower river area.

Impacts on the scenic river value

A wild and scenic river designation would establish a congressional mandate to maintain a natural setting on the upper wild river area and a slightly less restrictive, near-natural setting on the lower scenic river area, thereby combining emphasis of preservation of the wild values on the upper river with the less pristine and greater capacity for limited development on the middle river.

Conclusion: A combination wild and scenic designation would be beneficial to the scenic values of the Squirrel River. It would allow more visible development than Alternative B, and less than Alternative A.

4.4.2 Impacts on land ownership and land use

This designation would directly impact the State of Alaska since state-selected land within the proposed wild and scenic corridor would remain unavailable for conveyance under this alternative.

Whether this designation would be construed as an adverse direct impact to the state depends on whether the state would relinquish any of its selected lands within the corridor if this alternative action was not implemented, and the existing selections became valid. The state has identified these lands for priority selection if they are not designated. This would be considered a direct adverse impact on general purpose lands selected by the state, but would not preclude road construction and recreation, which are the identified purposes for selecting the lands.

Conclusion: A combination wild and scenic designation would foreclose state selections and conveyance of land to the state within the Squirrel River corridor.

4.4.3 Impacts on access and transportation

Under a combination of wild and scenic designation, a federal conservation system unit would be created and any proposals for access routes crossing the unit would require conformance with Title XI provisions of the Alaska National Interest Lands Conservation Act. The State of Alaska has identified this situation as an adverse impact to long-term plans for road development within the Squirrel River corridor.

Potentially suitable river crossing sites identified by the State of Alaska also exist outside the wild and scenic corridor on NANA lands near Kiana. However, development of transportation corridors across private lands may require compensation of the landowner and such a development scenario might prove more costly than building a corridor across public lands. This alternative was developed, based on scoping input, to allow for consideration of a river crossing on the scenic segment of the corridor that would not impact the outstandingly remarkable river values of that segment.

Both access for subsistence use and access to Native allotments in the wild and scenic corridor would not be adversely impacted as long as such access is reasonable and does not adversely affect outstandingly remarkable river values. Both rights of access are addressed under applicable federal law.

Conclusion: A combination of wild and scenic designation would not foreclose transportation and access development within the scenic lower section of the Squirrel River corridor. In the upper wild section, road construction would

only be allowed if there were no feasible alternatives.

4.4.4 Impacts on mineral development

A wild and scenic designation of the Squirrel River would have no identifiable adverse impacts to placer or lode mining interests on federal lands since the lands have been withdrawn from mineral entry and location since 1972 by Public Land Order 5179. In addition, the best available information indicates that placer and lode prospects within the corridor do not exist. Potential development of placer or lode prospects in the headwaters of the drainage, and other areas outside the corridor, would not be directly impacted by this alternative, but could be discouraged by it.

Conclusion: A combination wild and scenic designation would have no direct adverse impacts to placer or lode mining interests on federal land. It would have an indirect adverse impact on adjacent lands by adding to the uncertainty facing potential developers.

4.4.5 Impacts on subsistence

This alternative to designate the Squirrel River within the withdrawal as wild and scenic would have a beneficial impact on subsistence. Designation would provide long-term federal management of public lands within the wild and scenic corridor, which would continue a rural preference for the taking of subsistence resources as provided for by Title VIII of the Alaska National Interest Lands Conservation Act.

An indirect beneficial impact to subsistence from designation would be realized through greater emphasis on management of fish and wildlife populations in the area, resulting in sound decisions regarding the management and conservation of these resources. Another indirect beneficial impact on subsistence resources would result from habitat preservation by discouraging or mitigating development that would adversely impact the outstandingly remarkable river values.

810(a) Evaluation and Finding Summary

The analysis required by Section 810(a) of the Alaska National Interest Lands Conservation Act is found in Appendix A. The 810 analysis found this alternative would not significantly reduce subsistence resources or harvester access. This

alternative would not result in a significant restriction on subsistence uses and needs.

Conclusion: A combination of wild and scenic designation would have a direct beneficial impact on subsistence since designation would provide long-term federal management of the proposed corridor, and ensure a rural preference for local rural subsistence users. An indirect beneficial impact to subsistence from designation would be realized through greater emphasis on monitoring of fish and wildlife populations in the area which would result in sound decisions regarding the management and conservation of these resources. Another indirect beneficial impact on subsistence resources would result from habitat preservation by limiting development.

4.4.6 Impacts on socio-economic conditions

This alternative to designate the Squirrel River as wild and scenic would provide long-term federal management of public lands within the corridor, and ensure a continued rural preference for the taking of wild resources as provided for by Title VIII of the Alaska National Interest Lands Conservation Act. This would directly impact the local economy, which is subsistence-based.

This alternative would also allow development of access corridors to mineralized lands in the northeastern portion of the Squirrel River drainage. Alternatives A and B would also allow this, but Alternative B, for wild designation, would place greater limitations on the type of development that could take place.

Management actions, which would restrict non-subsistence harvests if they adversely impacted subsistence resources, would mitigate adverse impacts on subsistence users that would occur from increased visitor use within the wild and scenic river corridor.

Conclusion: A combination of wild and scenic designation of the Squirrel River could enhance the short-term social and economic conditions of people in northwest Alaska. Some opportunities for economic development would be foreclosed in the future if visitor use were limited to protect subsistence use or river values, or if designation had a chilling effect on mineral development subsequent to changing market conditions. Subsistence use by rural residents would continue to be given priority, and lifestyles related to traditional land uses would be protected, benefiting traditional social values but perhaps detracting from economic opportunities that might also benefit other traditional social values. Eco-tourism could provide some potential for economic benefit in the future.

4.4.7 Impacts on wildlife

Designation of the wild segment would provide greater protection for wildlife and wildlife habitat within the corridor by discouraging or mitigating development which would disrupt habitat or improve access for human harvest of wildlife.

Designation of the lower Squirrel River and its tributaries as scenic would not prevent rights-of ways, construction of roads and trails, or a crossing of the river in the scenic segment on the middle river, but would require careful scrutiny to ensure that such proposed developments do not adversely impact outstandingly remarkable river values. It would also provide some protection for wildlife and habitat values by discouraging or mitigating development that would disrupt habitat or allow greater access for human harvest of wildlife.

With appropriate restrictions on consumptive use of natural fauna and flora, wildlife in the area would not be adversely impacted by a moderate increase in visitation which would result from the wild and scenic designation.

Conclusion: A combination wild and scenic designation would protect wildlife habitat and enhance wildlife management in the Squirrel River area.

4.5 Impacts from implementing Alternative D: No action

Under Alternative D, lands within the Squirrel River watershed would not be recommended for designation as a component of the national wild and scenic river system. The Alaska National Interest Lands Conservation Act withdrawal would expire and the land would return to its previous classification under Public Land Order 5179 or be transferred to the State of Alaska. This analysis assumes that approximately 81,501 acres would be made available by lifting the the Alaska National Interest Lands Conservation Act withdrawal. Some of this land would be conveyed to the state. Federal management would continue on selected land until it is conveyed.

4.5.1 Impacts on outstandingly remarkable river values

Impacts on the cultural heritage river value

The identified cultural heritage value would receive no special emphasis under the no designation alternative. Although BLM management of unselected federal

lands would continue within the corridor, there would be no additional legislative mandate to recognize the cultural concerns of the Native communities in the region. Lands conveyed to the state would not be subject to federal management.

Because the state does not recognize a rural subsistence priority and federal land managers would devote less time to the area, alternative D would appear to have an adverse impact on cultural heritage values in the area. However, the State government and Native communities prefer this alternative over designation. Either way, designation or no designation, the Natives of northwest Alaska will have to work with both the State and BLM in the Squirrel River drainage. The residents of the Village of Kiana feel they have a better chance to preserve their cultural heritage in the long run with no designated wild and scenic river and expanded State land management.

Conclusion: In contrast to the other alternatives, alternative D does not provide special consideration and protection for cultural heritage values. Because the state does not recognize a rural subsistence priority and the federal land managers would devote less time to the area, this alternative could have an adverse impact on cultural heritage values in the area. However, local Natives believe their cultural heritage can best be maintained under this alternative.

Impacts on the river value for fish

Under alternative D, the lands identified for selection by the state in the withdrawn corridor would become available. The state has expressed interest in constructing a road system through the Squirrel River drainage, which provides a greater potential for disturbance of fish habitat under this alternative. However, potential for development of this system within the reasonably foreseeable future is low.

In contrast, the designation alternatives would provide for specific protection of the outstandingly remarkable fish value. Road construction would also have an indirect adverse impact through increased access for fishing. Although there is a greater potential for mineral development in the corridor area on state lands, the lack of identified mineral values within the corridor make adverse impacts from mining on fish unlikely.

Lands remaining under BLM management within the corridor area would still be subject to Public Land Order 5179, so these lands would not be open to mineral entry. These lands would be subject to ongoing BLM management actions. They would not benefit, however, from the greater emphasis on management of fish and wildlife habitat that would occur under designation and the development of a river management plan.

Conclusion: In contrast to the other alternatives, alternative D does not provide directly for the protection or enhancement of fisheries values. However, potential adverse impacts under this alternative are low for the reasonably foreseeable future because no land or water uses have been proposed that would pose significant threats to fisheries values.

Impacts on the recreation river value

The Squirrel River currently provides a high-quality recreation experience for visitors who enjoy solitude, boating, sport fishing, and sport hunting in a natural setting. Improved access would initially allow for easier access for sport hunters and fishers, and would also stimulate increased hunting and fishing pressure that could eventually deplete these resources without specific management emphasis for protection. These experiences could be adversely affected by the introduction of almost any form of improved access along the river area, especially roads, although the potential for such development in the foreseeable future is low. Road building and other developments within the riparian zone could impact riparian vegetation and stream bank structure, which would adversely impact both fish and wildlife habitat.

It is unlikely that BLM would place many restrictions on recreation activities on unselected federal lands if the area is not designated under the Wild and Scenic Rivers Act. This is due to the lack of a congressional or administrative mandate to maintain the land for a particular attribute, as well as financial prioritization. Lands conveyed to the state would be managed under guidelines provided in the Northwest Area Plan for State Lands, which does not specifically identify state lands selected after 1989.

Conclusion: In comparison to the other alternatives, alternative D provides the least protection for recreational values. Recreation opportunities could be foreclosed to allow for other uses, although this is unlikely to occur within 15 years.

4.5.2 Impacts on the scenic river value

The current scenic value of the Squirrel River, similar to that described above for the recreation value, is considered high, because of the current lack of development along the river corridor and the scenic qualities of the Squirrel River setting. It is anticipated that Alternative D would provide the greatest likelihood of development within the proposed corridor due to potential conveyance of land to the

state and the state's support for developments such as road building, although the potential for this is low for the foreseeable future. Any such development would have an adverse impact on the scenic river value because it would change the near-natural setting to a more developed one.

Management of BLM lands not selected by the state and not designated under the Wild and Scenic Rivers Act would include a visual resource management Class of III or IV which would allow for major modifications of the landscape that could dominate the view.

Conclusion: In comparison to the other alternatives, alternative D provides the least protection for scenic values. With no designation scenic values could be foreclosed to allow streamside development and road building.

4.5.3 Impacts on land ownership and land use

Under alternative D about 81,501 acres of State selected lands (576 of which are subject to Alaska Native Claims Settlement Act selection rights) within the study river withdrawal would be made available for conveyance to the state. This could add to the utility of other existing state selections outside the withdrawal because it would allow for larger and more contiguous blocks of land to be conveyed.

If the state chose to accept conveyance of those lands made available under the no designation alternative, the complexity of land management in the corridor (due to the combination of state and federally managed lands) would require close cooperation and interagency planning.

Conclusion: Alternative D would be beneficial to the State of Alaska by allowing for selection and conveyance of lands the State has identified. It could be argued that no designation would have adverse effects on federal land management because it could result in more interspersed ownership of state and federal lands along the Squirrel River and result in increased complexity of land management; however, the land ownership pattern would be complex under all of the alternatives.

4.5.4 Impacts on access and transportation

If the proposed corridor is not designated, a federal conservation system unit would not be established on the Squirrel River. The state would therefore not have to conform with Title XI of the Alaska National Interest Lands Conservation Act for application of proposed transportation projects within the corridor. However, the significance of this impact would be minimal if a proposed transportation

system were to cross other federal conservation system units in the area. Title XI administrative requirements would have to be met regarding any proposals to cross those other lands. The potential for development of such a transportation system in the foreseeable future is low. In addition, rights-of-way across selected and unselected federal lands within the watershed would still require application to the BLM and compliance with the Federal Land Policy and Management Act and the National Environmental Policy Act.

Conclusion: Alternative D would have a beneficial impact on overland transportation and access by facilitating development of a state transportation system along the Squirrel River; however, the potential for such development is low over the next 15 years.

4.5.5 Impacts on mineral development

Under this alternative, state-selected lands in the Squirrel River corridor would be open to mineral entry under state law according to the Northwest Area Plan for State Lands. The federal land in the corridor would remain closed to mineral entry by the continuation of Public Land Order 5179, even if the corridor was not designated under the Wild and Scenic Rivers Act. However, as there are not now, nor have there ever been active mining claims within the corridor, no mining interests within the corridor during the reasonably foreseeable future would be adversely impacted.

Conclusion: Alternative D would be beneficial to mineral development on state lands, which would be open to mineral entry but the potential within these lands is very low. This alternative would have no impact on mineral development on land remaining under federal management.

4.5.6 Impacts on subsistence

Under alternative D, the rural preference for subsistence provided by Title VIII of the Alaska National Interest Lands Conservation Act would no longer exist on 78,440 acres of land which would be conveyed to the state. Rural preference for subsistence would still be in effect on the remaining unselected federal land in the withdrawal (about 118,987 acres). If it becomes necessary to restrict the taking of resources, local rural residents would be given preference over non-rural Alaska residents and non-residents to allow for the continuation of subsistence uses.

In addition, without designation, it is unlikely that a greater emphasis on the management of fish and wildlife habitat would be placed on those remaining fed-

eral lands within the Squirrel River corridor. The lack of designation would reduce the opportunity to provide essential data to make sound decisions regarding the management and conservation of those resources which in turn would ensure the continuation of a subsistence lifestyle on the remaining federal lands.

Without the additional emphasis provided by designation, there would be less capability for managing the fall sport hunting activities that have increased in the Squirrel River area. This emphasis would allow for management of access to these resources on federal lands in the Squirrel River corridor if necessary to provide for subsistence use.

New rights-of-way and transportation corridors would be subject to NEPA analysis on federal lands in the corridor, and on state lands where wetlands, navigable waters, or federal funds are involved. Construction of impoundments, diversions, and other modifications of the Squirrel River would be permitted.

810(a) Evaluation and Finding Summary

The analysis required by Section 810(a) of the Alaska National Interest Lands Conservation Act is found in Appendix A. The 810 analysis found this alternative would not significantly reduce subsistence resources or harvester access. This alternative will not result in a significant restriction on subsistence uses and needs.

Conclusion: Alternative D would not result in any significant restriction on subsistence uses and needs. Conveyance of lands along the river would result in a loss of rural subsistence priority for game management in the river area. This could be a potential adverse effect to subsistence users in the future, although both state and federal land managers are committed to protecting habitat and populations important to subsistence users.

4.5.7 Impacts on socio-economic conditions

Road building, which is more likely to occur under this alternative, although the potential is low for the foreseeable future, would provide greater access to wildlife and subsistence resources, without the rural preference for subsistence on state-selected and conveyed lands. There would also be greater potential for access to these resources on adjacent federal lands where the subsistence preference exists. This would make subsistence harvests easier for rural residents. Direct impacts resulting from road construction and maintenance in a remote area would be detrimental to wildlife habitat but would also provide for additional jobs in the area. Management costs and the need for more interagency coordination for protection

of wildlife and subsistence resources would likely increase due to increased harvest.

Ease of access may also provide opportunities for increased hunting and fishing. A greater opportunity would exist to provide for local guiding operations, as well as tourism opportunities, although the attraction of the primitive nature of the area would be reduced and competition with local subsistence users would increase.

Road building would also provide better access to areas of potential mineral development in the Squirrel River watershed outside the area, which could provide an improved local social and economic base.

Local residents are nervous about potential designation, and have misgivings about commitments from the federal government to support their culture and use of the area. At scoping meetings, anecdotal evidence was presented of management restrictions in other federally managed areas nearby that were seen to be limiting local uses to the detriment of the socio-economic well-being of the residents.

Conclusion: Alternative D might have minor adverse impacts on subsistence use on the currently withdrawn lands. It would decrease protection of ecotourism values. It would be beneficial for potential mineral development in the area. Of the alternatives presented here, it would probably cause the least social stress for local residents because it avoids the uncertainty of future management of a conservation system component. The impact on subsistence could be offset if mineral development and improvement in the wage economic sectors provide benefits in the long run.

4.5.8 Impacts on wildlife

Under alternative D hunter effort would continue to increase. Hunters from outside the local area would take a greater share of the harvest total. Total harvest would continue to be managed to protect habitat and populations.

The present increasing trend of trophy sport hunting, particularly for moose, may start a cumulative impact, regardless of designation, which may result in more restrictive hunting seasons.

The acreage to be managed for federal protection of subsistence wildlife resources would be reduced. In comparison to the other alternatives, federal emphasis on habitat protection associated outstandingly remarkable river values would not occur. Different people would probably use the resources, due to the loss of

rural subsistence preference on lands transferred to the state, but state and federal goals for habitat protection and population management are quite similar.

Developments, such as rights-of-way and road construction, would be more likely to occur if the river was not designated. Development would have an adverse impact on wildlife species and habitat in the Squirrel River corridor. This would directly impact wildlife habitat, movement, and populations, as well as provide improved access for increased harvesting of wildlife. Such development is not expected within the next 15 years.

Conclusion: The no designation alternative would have a neutral impact on wildlife and wildlife habitat in the next 15 years. Beyond that, development of roads or other projects near the river might have negative impacts, although both state and federal mandates protect habitat and populations.

4.6 Cumulative effects summary

The National Environmental Policy Act requires us to discuss cumulative effects, which are defined as impacts on the environment that result

> from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.[1]

Our analysis of cumulative effects is summarized in this section.

For alternatives A, B, and C, which propose the designation of the Squirrel River as a component of the national wild and scenic rivers system, cumulative effects involve limitations to the development of infrastructure such as transportation corridors, and limits on development activities that might contribute to the cash economy of the area. If the river area is designated, it becomes slightly less likely that the state, a corporation, or an individual would invest in a development that could possibly conflict with the outstandingly remarkable river values (cultural heritage, fish, recreation, and scenic quality). This is because in a designated river area the federal government is mandated to protect the river values, as well as the free-flowing, unpolluted nature of the stream. However, in our analysis we found that specific development activities are not reasonably foreseeable. If they do occur, it is likely that 15 years or more will have passed.

[1] 40 CFR 1508.7

For alternative D, which proposes no designation, the determination of cumulative effects is similar. If the stream is not designated, the state may receive conveyance of lands along the river that they would not manage under the other alternatives. This would make it easier for the state to develop transportation routes as planned, and would allow the state to encourage the economic development of the area through the construction of infrastructure. Corporate and private development might also be encouraged due to the greater flexibility federal managing agencies would have under alternative D.

4.7 Adverse environmental effects summary

The National Environmental Policy Act requires us to discuss adverse environmental effects that cannot be avoided. Our analysis of these effects is summarized in this section.

The alternatives that propose designation of some part of the Squirrel River as a component of the national wild and scenic rivers system—that is, alternatives A, B, and C—would limit the support federal agencies could give to actions that might have negative impacts on the following:

- Outstandingly remarkable values, to include cultural heritage, fish, recreation, and scenic qualities.
- The free-flowing nature of the stream.
- The unpolluted waters of the stream.

The mandate for protection of these values would have some unavoidable adverse effects on the human environment because the range of development activities that might contribute to the cash economy would be reduced. It would also increase the risks of development of mineral prospects in the northeastern part of the basin, which would make such development slightly less likely than if the river were not designated.

Alternatives A, B, and C all incorporate a protective withdrawal that would limit the land available for state selection. This would have a slight adverse effect on state plans for transportation corridors in the area. The effect would be slight because the construction of roads is not expected to occur for more than 15 years, and there are provisions in the Alaska National Interest Lands Conservation Act that provide for such uses in conservation system units.

Alternative D, which results in no designation, would reverse the situation. If the river is not designated, there will be less protection for free-flowing unpolluted waters, and for the outstandingly remarkable values. However, the threats to these resources are slight. Conveyance of lands to the state under alternative D would eliminate a federal rural subsistence preference on those lands. However, there are no current conflicts involving rural subsistence use in the area. During scoping the local residents indicated that their interests would be best served by alternative D, even if it results in a loss of rural preference.

4.8 Short-term uses and long-term productivity

The National Environmental Policy Act requires us to describe the relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity for all alternatives.

This document deals primarily with administrative actions and land uses that might occur in the long term. The area currently receives little use, except by fly-in sport hunters during August and September, and this use appears to be limited to near current levels by the availability of landing sites.

4.9 Irreversible or irretrievable commitments

The National Environmental Policy Act requires us to describe any irreversible or irretrievable commitments of resources.

No irreversible or irretrievable commitments of resources are involved in any of the alternatives. If the Squirrel River becomes part of the national wild and scenic rivers system, Congress can remove the river from the system at any time. If the Squirrel River is not designated, it can be reconsidered in the future.

Chapter 5

Public Participation

5.1 Introduction

The Squirrel River Wild and Scenic River Environmental Impact Statement is being prepared by a Bureau of Land Management interdisciplinary team of resource specialists. Scoping for the legislative environmental impact statement began in January 1993.

5.2 Scoping and issue identification

A series of four scoping meetings were held in Kotzebue, Kiana, Anchorage and Fairbanks. Comments on issues and concerns were submitted to BLM personnel at the meetings either orally or in written statements. In addition to attending the formal scoping meetings, the public was also encouraged to mail comments on issues or concerns to BLM. Approximately 20 written comments were received. In addition, a series of 16 informal teleconferences were held with agency personnel and interest groups prior to final identification of the alternatives. Among the agencies and private corporations contacted were the following:

Federal agencies:
U.S. Army Corps of Engineers
Bureau of Land Management
Bureau of Mines
Environmental Protection Agency
U.S. Fish and Wildlife Service

U.S. Geological Survey
Minerals Management Service
National Park Service

Alaska agencies and interests:
Alaska Department of Fish and Game
Alaska Department of Natural Resources
Alaska Department of Transportation and Public Facilities
Northern Alaska Environmental Center
Office of Management and Budget, Division of Governmental Coordination

Local agencies and interests:
City of Kiana
City of Noorvik
IRA Councils of Kiana, Kotzebue, and Noorvik
Kawerak, Inc.
Maniilaq Association
NANA Regional Corporation
Northwest Arctic Borough

The Bureau of Land Management mailed three issues of a wild and scenic river update to approximately 300 individuals, agencies, and organizations who had expressed interest in the progress of the wild and scenic river study.

5.3 List of preparers

This document was prepared and reviewed by a team of resource specialists. Members of the team were the primary authors. They are:

Elizabeth Bonnell B.S. in Sociology from Alaska Pacific University, Realty Specialist, Northern District, 23 years with BLM.

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Anne E. Morkill B. S. in Wildlife Biology from Colorado State University, M.S. in Zoology from University of Wyoming, Wildlife Biologist, Northern District, 6 years with BLM. Ms. Morkill left BLM in 1998.

Lynette Roberts Staff Assistant, Northern District, 5 years with BLM.

Howard L. Smith M.A. in Archaeology from University of Utah, Natural Resource Specialist, Northern District, 21 years with BLM.

Joseph F. Webb M.S. in Fisheries Biology from Tennessee Technological University, Fishery Biologist, Northern District, 20 years with BLM.

Susan M. Will B.A. in Anthropology from University of Alaska Fairbanks, Squirrel River Study Team Leader, Northern District, 17 years with BLM.

Curtis J. Wilson Ph.D. in Anthropology from State University of New York at Binghamton, Land Use Planner, Alaska State Office, 8 years with BLM.

5.4 Summary of scoping questions and comments, with agency commentary

Two central concerns emerged during the scoping process. One pertained to issues specific to the process involved in reaching the agency's preferred alternative. The second was the potential impact, adverse or positive, this alternative would have on the traditional subsistence lifestyle of the residents in the study area.

The following questions or comments were received by BLM during the scoping process. They have been consolidated and arranged by issue. Each question or comment is accompanied by a response from BLM.

5.4.1 Community input into the study process

1. How much weight does community input and citizen comment have in the decision-making process?

   Answer. Citizen input is a very important part of this process. It will be used by people who may not understand or have experience with all of the special concerns of the local residents. Your comments will help create better alternatives concerning management of the Squirrel River. BLM intends to work closely with local residents and other interested people in developing plans to manage the area. Involvement in BLM planning efforts by concerned individuals is welcome and is an avenue for effective participation.

2. How much has community input been considered elsewhere, in similar situations?

   Answer. The same process involving public meetings and comment periods has been used in other communities. Input from local residents and interested parties has been a vital source of information on which decisions and recommendations were based.

3. Why weren't local residents encouraged and allowed to contribute input on the brochures [34]?

   Answer. The brochure was produced by BLM to educate and to inform the general public on the best way to respect, use and enjoy the Squirrel River while creating minimal impact on those who depend upon the area and its resources for their subsistence needs. The BLM staff who prepared

the brochure simply did not know there were interested local residents who wanted to have input.

4. Has the BLM brochure impacted use of Squirrel River?

   Answer. There is no evidence that the brochure has attracted additional visitors to the Squirrel River. Based on information from commercial transporters, any increase in visitation can be attributed to additional hunting pressure.

5. What opportunity is there to participate in decisions dealing with land use in the region?

   Answer. The scoping and issue identification process involves the public, interest groups and various agencies. Information is disseminated through news releases, public information brochures and public meetings. Information is solicited from federal, state and local governmental agencies, Native corporations and individuals. These avenues provide opportunity for participation by individuals and groups in identifying and defining issues and possible outcomes. BLM not only welcomes but solicits input from those who may have a different vantage point from which to view the issues and potential management decisions.

6. This is our land; why do outsiders have the right to decide what will or will not be allowed?

   Answer. BLM recognizes the important cultural ties of the Inupiat people to these lands. We are committed to a public planning process where all interested citizens are encouraged to participate. The recommendation on the suitability of the Squirrel River as a component of the national wild and scenic rivers system will be made by the BLM State Director in Alaska, based on the analysis in the environmental impact statement.

7. What opportunities exist for contracting under Public Law 638?

   Answer. Since 1993 BLM has contracted with many Native organizations in Alaska (among them Maniilaq Association and Tananna Chiefs Conference) for surveys of lands selected under the Alaska Native Claims Settlement Act and the Native Allotment Act. Other possibilities may evolve in the future.

8. Would local residents have input into specific implementation of management actions during the river planning process?

   Answer. Yes. Public input is part of the process of identifying implementation actions of the river management plan.

9. How would the concerns of different groups be balanced? For example, subsistence users and sport hunters or recreational floaters?

   Answer. Subsistence priority is guaranteed by the Alaska National Interest Lands Conservation Act. Where there are differences of concerns between interest groups, preference will be granted to the option that is most protective of the land under the law. However, regardless of designation status, the different land ownerships in the Squirrel River drainage will require the cooperation of all the interest groups for best management of the resources.

10. Is co-management an option?

    Answer. There is no formal mechanism for co-management, but one may be developed in the future. However, BLM is interested in receiving local input on management concerns. Cooperation between BLM and those who are most affected by designation is crucial to the identification of potential impacts to the river values that are most important to traditional activities.

11. Is BLM the only agency involved with the designation process?

    Answer. No. Information is gathered from a variety of sources and with consideration of possible impacts on other agencies, such as the Alaska Department of Fish and Game.

12. Who do BLM employees consult when they lack expertise on an issue?

    Answer. They consult experts from other agencies and other knowledgeable individuals, including local residents.

13. If BLM efforts don't result in designation, what other agencies would then get involved?

    Answer. If Congress chooses not to designate the Squirrel River, the effort would be dropped by the federal government. The state of Alaska would then be allowed to prioritize conveyance of the selected land within the withdrawal. If conditions change in the future, and the river is still free-flowing and unpolluted, the issue of suitability could be reassessed.

14. How often can a river management plan be amended?

    Answer. River management plans can be amended as needed.

15. Can Congress change a wild and scenic river designation after the fact?

    Answer. Yes.

16. What assurance is there that Congress won't alter the recommendation without further input.

    Answer. There is no assurance, but it is generally not done without public input.

17. Is BLM mandated to advertise and promote a wild and scenic river?

    Answer. No. However, BLM is required to provide educational information to enhance public safety and natural resource protection.

18. Can wild and scenic river designation accommodate changes in use over time?

    Answer. Yes, although changes usually result in modification of the river management plan with additional public input. Major changes in a wild and scenic river designation would require congressional action.

5.4.2 Traditional use/subsistence

19. Is wildlife a significant issue in the corridor since moose move in and out seasonally?

    Answer. Moose habitat may not be an issue but the Squirrel River watershed is an important area for caribou. Most wildlife concerns and possible impacts have been identified in relation to subsistence and recreational use.

20. Will the government ensure continuance of Inupiat traditions?

    Answer. Government assurance of continuance of cultural traditions is beyond the scope of this process. However, designation as a wild and scenic river would formally identify cultural heritage as an outstandingly remarkable river value. This would provide an additional opportunity for protection of cultural traditions.

21. Can/will Congress amend its position on the Alaska National Interest Lands Conservation Act subsistence?

    Answer. It is within the power of Congress to amend their position on the Alaska National Interest Lands Conservation Act. We cannot predict if they will do so in the future.

22. How would possible designation and the potential for increased visitor activity affect caribou migration and how would BLM respond to this type of impact?

    Answer. The Alaska National Interest Lands Conservation Act mandates that any activity that would significantly impact subsistence users or the resources they depend on will generally not be permitted. If visitor activity proved to affect caribou migration, it is likely that BLM would regulate the number of individuals using the river and make adjustments in use areas and permits.

23. How will competition for subsistence resources be regulated if there is an increase of transporters and guides into the Squirrel River?

    Answer. Technically there is no competition. The Alaska National Interest Lands Conservation Act grants subsistence priority over other activities. All commercial operators would be required to have a permit to operate in the river corridor, which gives BLM a regulatory tool. If it appears that resource inventories are being adversely impacted, licenses will be restricted before they affect subsistence uses.

24. Will there be more restrictions on subsistence use over time?

    Answer. Existing hunting and fishing rules will continue to apply. Subsistence uses are guaranteed in the Alaska National Interest Lands Conservation Act but sport hunting and fishing will also be allowed. Under state and federal regulations, if fish and game populations face depletion, sport hunting and fishing would be restricted before subsistence activities. If subsistence use of fish, wildlife or vegetation resources threatens those resources, subsistence activities may be regulated.

25. People won't oppose designation if they can still hunt.

    Answer. Comment noted.

26. Would subsistence be given priority over recreational use?

    Answer. The Alaska National Interest Lands Conservation Act mandates that subsistence activities be granted priority over other uses.

27. How would subsistence activities be impacted by increased visitor use under a wild and scenic river designation?

    Answer. There is no way to predict specific impacts at this time. Any perceived impact would be addressed by regulations and restrictions placed on visitor activities.

28. What assurances are there for habitat protection for subsistence uses and rural preference?

    Answer. The intent of the Wild and Scenic Rivers Act is to ensure protection of those values for which a river is designated and that its immediate environment shall be protected for the benefit and enjoyment of present and future generations. The language of the Wild and Scenic Rivers Act guarantees habitat protection, while the Alaska National Interest Lands Conservation Act mandates rural preference.

29. Under designation is there the potential for protection of subsistence activities which goes beyond those provided by the Alaska National Interest Lands Conservation Act?

    Answer. We do not know. It is the responsibility of Congress to decide this issue.

30. Why isn't subsistence considered an outstandingly remarkable river value?

    Answer. Subsistence has already been addressed in the Alaska National Interest Lands Conservation Act so it was not necessary to include it as an outstandingly remarkable river value. Subsistence is considered as an important issue, and the subsistence lifestyle is part of the outstandingly remarkable cultural heritage value.

31. Can house logs still be harvested in wild and scenic river corridor?

    Answer. The cutting of house logs or firewood is allowed under the Alaska National Interest Lands Conservation Act. Wood harvest could be limited if it harms aesthetic values for which designation occurred, if increased use becomes detrimental to nesting habitat for birds, or if harvest undermines the stability of the river bank.

32. Designation and regulation will not necessarily protect the river and/or improve quality of life for people in the area.

Answer. Comment noted.

5.4.3 Native allotments

33. How would Native allotments along the river corridor be affected by designation?

Answer. Private land within the boundaries of wild and scenic river corridors are not considered components of the wild and scenic river designation in Alaska. Native Allotments are private property.

34. How would trespass on Native allotments, resulting from increased visitor use, be dealt with? Whose enforcement jurisdiction would it be?

Answer. The public would be provided, through brochures, maps, etc., the location of private lands and the location of BLM public lands where recreational activities are allowed. BLM rangers and recreation planners would work with community members to prevent potential trespass problems. Should enforcement measures become necessary, BLM rangers would collaborate with the Alaska State Troopers to mitigate the problem.

35. Can Native allotments be condemned in wild and scenic rivers?

Answer. Only in very limited circumstances. The Wild and Scenic Rivers Act is very restrictive, and as a practical matter condemnation is almost never used to acquire property for inclusion in a wild and scenic river designation. See the next question.

36. What assurances exist for protection of Native Allotment uses?

Answer. Designation neither gives nor implies government control of adjacent private lands.

37. For inholders there would be a potential conflict between protection and more restrictive regulation.

Answer. Comment noted.

38. Under designation would restrictions be placed upon private enterprises on private lands?

Answer. Native Allotments are private lands. Private lands can be used as the owner desires as long as the side affects of those uses do not directly or indirectly affect the river resources and are not inconsistent with purposes of the Wild and Scenic Rivers Act. Side effects could include pollutants such as sewage, garbage, chemicals and other detrimental materials.

39. How would designation affect Alaska Native Claims Settlement Act Section 17(b) easements?

Answer. There are no 17(b) easements within the study area. However, two are located downstream on NANA lands. Existing 17(b) easements as provided under Alaska Native Claims Settlement Act will not be affected by either the IAP or the possible designation of the Squirrel River as a wild and scenic river. As public rights-of-way crossing private land, the 17(b) easements are managed by the BLM, and access limitations would be unchanged by the mere designation of the Squirrel River as a wild and scenic river. The only time the 17(b) easements would be affected is in the event of heavy traffic creating congestion that would threaten the resource. In all cases where a change is proposed in authorized uses or location from the original conveyance, BLM will give adequate public notice and opportunity to participate and comment to the affected Native corporation and other interested parties, including the state of Alaska. Service proposals for changing the terms and conditions of 17(b) easements would include justification for the proposed change, and evaluation of alternatives considered, if any, and an evaluation of potential impacts of the proposed action.

5.4.4 Recreation monitoring

40. How would BLM monitor signs of overuse if the river is designated?

Answer. BLM would maintain a presence on the river in order to monitor evidence of visitor impacts on resources. These visitor impacts are viewed in terms of their effects on the various river resources. Impacts can range from littering to conflicts resulting from visitors trespassing on private property. Impacts that adversely affect river resource qualities will be identified and evaluated as to location, cause and extent.

41. How can we be sure monitoring efforts provide accurate information?

Answer. The information gained from BLM monitoring efforts, coupled

with information from local resource users, should provide an accurate picture of the effects of any additional usage after designation.

42. The Noatak Wild River is an attractant, which has its pros and cons.

Answer. Comment noted.

43. What would happen in the case of overuse?

Answer. Limiting recreational activities on components of the national wild and scenic rivers system and other federally administered rivers might be necessary to protect resource and social values. Importantly, whether and/or how to restrict recreational use is a key issue in development of the detailed management plan subsequent to designation. This planning process includes extensive local, regional and national public involvement.

Measures could be taken to mitigate or prevent these impacts through regulation of the numbers of individuals using the river, adjustment in use area, permits and/or other applicable regulatory techniques. All commercial operators would be required to have a permit to operate in the wild river corridor.

44. How does BLM deal with overuse of the Unalakleet?

Answer. No overuse has been identified on the Unalakleet, but it would be dealt with as described above.

45. Why was the Squirrel River brochure [34] aimed at recreational users?

Answer. The brochure was written in response to requests for information on the recreational level.

46. It would be good to get recreational money into the local economy.

Answer. Comment noted.

47. How would visitor trash and sewage be dealt with?

Answer. BLM employees or contractors would monitor the river. Among their duties would be the mitigation of tangible affects of visitor usage, which would include cleaning up campsites.

48. What is the current level of recreational use and what are future projections?

Answer. Current recreation use levels are low, except for late August and all of September, when hunting activity for caribou and moose rises substantially. Dependent upon river ice conditions and depth of snow in any given winter season, there is usually a steady, low level presence of trappers, snowmachiners and dog mushers, with some ice fishing in the spring. Hikers and floaters during June through most of August often encounter no other parties on the river or in the uplands. However, during late August and September, the traffic from small aircraft arrivals and departures is quite noticeable, and hunting parties are well aware of each other.

June - September recreation use, Squirrel River		
Year	*Number of people*	*Percentage sport hunters*
1994	193	83
1995	190	96
1996	171	96

During 1996, four of the six commercial guiding operations with Special Recreation Permits conducted business in the Squirrel River basin. They served 48 clients, with stays ranging from 7- 12 days, for a total of 503 visitor days. Their primary activities included big game hunting, fishing and photography. Five charter aircraft and water craft operators (transporters) from the local area carried approximately 123 clients, with stays ranging from 4-7 days, for a total of 449 user days. They identified big game hunting, fishing, hiking, rafting and photography as primary activities.

BLM projections indicate that additional usage would probably result from an increase in hunting, rather than an increase in floaters, due to designation. This has been the case in other areas. However, given the current high level of hunting use evident in the Squirrel River, aircraft access points are often continuously occupied by a series of users. The opportunity for an actual increase in hunting seems small. There may be fluctuations in overall uses tied to intermittent publicity about the area.

49. Would designation of the Squirrel River cause an increase in visitors?

Answer. Although research on the effects of designation is limited, a review of such areas in the western United States indicates that little or no increase in use occurs directly as a result of designation.

Available information on designated wild and scenic rivers in Alaska indicates that there is a slight increase in use within three to four years following designation. Use then drops off. Media coverage, such as magazine articles, and additional attractants, such as name recognition and accessibility, appear to be more significant factors affecting visitor increase.

50. Why is it important that people have one more river to float when it could adversely impact subsistence uses?

Answer. Study of the Squirrel River for possible designation as a wild and scenic river was mandated by Congress in the Alaska National Interest Lands Conservation Act. It was seen as an accessible river for people to enjoy while becoming educated about the area and the importance of the traditional uses of the land and the subsistence lifestyle.

51. What types of facilities would be allowed within a wild river corridor?

Answer. Facilities would be provided if they were consistent with the management plan for the river. Should river use approach levels that would require such facilities, use could be restricted through permits or other regulatory means. However, if they became necessary for public health and safety, an administrative headquarters, camping sites, visitor service facilities, and search and rescue facilities could be established. This level of planning would be addressed in the river management plan, based on community input.

52. Could restrictions be placed on floaters to reduce impact on subsistence activities; for example, salmon runs and caribou migrations?

Answer. The Alaska National Interest Lands Conservation Act mandates that any activity that would significantly impact subsistence users or the resources on which they depend will not be permitted. Some restrictions may need to be placed on the number of floaters permitted to be on the river at any given time.

53. What impact might increased air traffic have on caribou migration?

Answer. Studies have shown that low-level flying could elicit a temporary panic response in a band of caribou. However, there have been no studies done on the long-term effects of air traffic on herd migration patterns.

54. Could Congress change wild and scenic river designation in the event of overuse or alteration of the river corridor?

    Answer. Congress has the power to change a wild and scenic river designation, but it is unlikely that it would do so without public input. A determination of what constitutes overuse is derived from BLM management documents, such as a river plan or the Integrated Activity Plan, and would be regulated by BLM.

55. How would limits of acceptable change be determined/monitored?

    Answer. BLM would establish a team that would include members of the public and representatives of interested organizations. The team would choose a resource indicator that reflects impacts on a desired resource quality, has a strong correlation with the amount or type of use occurring, is easily and reliably measured, that reflects impacts on a desired resource quality; and preferably one that also has a strong correlation with the amount or type of use occurring. As a hypothetical example, every three to 10 years (depending on use levels) fishery biologists might sample the grayling population and track the percentage of fish within a certain size class. This could give an indication of the effects of angling on the viability of the grayling population.

56. How would future tourism modes of transportation that are not addressed in the Alaska National Interest Lands Conservation Act be dealt with?

    Answer. Each case would be dealt with individually based on their impact on the outstandingly remarkable river values for which designation was made.

57. How would drinking water quality be monitored and protected?

    Answer. Congress declared its intent to protect the water quality of rivers added to the national system in Section 1(b) of the Wild and Scenic Rivers Act. Congress further specified that the river-administering agencies cooperate with the EPA and state water pollution control agencies to eliminate or diminish water pollution in Section 12(c).

    Waters within the state are protected under the Alaska Water Quality Standards. The Squirrel River is protected under the most stringent criteria of the use classes that apply. Should there be any decline in quality, testing

would be done by the Alaska Department of Environmental Conservation to determine the cause and activate mitigation measures.

58. How would sport fishing impact subsistence use?

Answer. Slightly, if at all. Field observations on the Squirrel River have determined that the level of sportfishing by non-residents is very low even though the quality of arctic grayling fishing is very good in the summer months. If pressure on fish stocks becomes apparent, the Alaska Department of Fish and Game would be responsible for reducing harvests by placing restrictions on sportfishing in the form of daily bag limits. Because sportfishing is done with a rod and reel and is also subject to these controls, it is unlikely to impact subsistence fishing. The federal government has a responsibility to give priority to rural subsistence use.

59. Who is responsible for bear safety and search and rescue operations?

Answer. Monitoring by BLM rangers would provide information to subsistence and recreational users on bear safety and remote area/low impact camping. Rangers would be responsible for promoting public education and visitor safety, which would include search and rescue.

5.4.5 Access

60. How would designation affect motorized travel on the river?

Answer. Traditional means of access, such as snow machines, dog sleds, outboard motorboats, airplanes and all-terrain vehicles are guaranteed by the Alaska National Interest Lands Conservation Act and would be allowed for subsistence river users. Inholders are also granted access under the Alaska National Interest Lands Conservation Act. Commercial operators must obtain a special use permit to operate motorized vehicles (boats or all-terrain vehicles). This is one way BLM can monitor and manage the level of commercial use. BLM may limit the number of commercial operators and the sizes of vehicles in the future if necessary to provide resource protection. However, at this time there are no restrictions.

61. Would a transportation corridor be possible?

Answer. The state has selected a transportation corridor along the Squirrel River, Omar River and North Fork. These selections identify segments of

a potential cross-country highway or railroad linking the Dalton Highway with the west coast. Under scenic designation road or railroad construction could be allowed if the river values were protected. With no designation, state selections would attach and road construction on these lands would be under state jurisdiction, once the lands are conveyed. Wild and scenic designation would allow road construction in the scenic segment only if the river values were protected, but construction in the wild segment would be discouraged. Under wild designation new rights-of-way and road construction would be discouraged, but they could be allowed if there were no feasible alternatives.

62. What impact would a road have on the region?

Answer. A road would make the region much more accessible to recreational visitors, subsistence users,and sport hunters and fishers from outside the area. It is possible that commercial visitor services such as gas stations, stores and lodges could be established on adjacent private lands to capitalize on the increase in non-local traffic. These changes would require heightened monitoring efforts to detect and mitigate adverse impacts on resources from the additional pressure on fish, game and other resources.

63. How would Title XI of the Alaska National Interest Lands Conservation Act apply under a scenic designation?

Answer. Road construction may be allowed under a scenic designation if the river values are protected. Access would be addressed under Title XI because this proposed transportation corridor would cross federal administrative conservation units of the National Park Service, U.S. Fish and Wildlife Service and BLM.

64. Would wild and scenic river designation preclude road building in the area?

Answer. Road construction could be allowed in scenic segments if the river values were protected. Road construction would be discouraged in wild segments.

BLM would work with the Federal Highway Administration pursuant to Section 4(f) of the Department of Transportation Act of 1966 to protect the values for which the river was designated. Any projects which might affect free flow (for example, bridges or riprapping) are also subject to evaluation by BLM under the Wild and Scenic Rivers Act.

5.4.6 State selections

65. What lands were selected by the state, and when will they be conveyed?

Answer. In 1993, almost 13 years after the Squirrel River lands were withdrawn by the Alaska National Interest Lands Conservation Act, the state selected a corridor of lands along the main stem of the Squirrel River. These lands included the West Fork, the North Fork, and the Omar River. After BLM completes the Squirrel wild and scenic river study and sends it to Congress, Congress has up to three years to decide whether or not to designate the river corridor. After a decision on designation is made by Congress, up to 81,501 additional acres of these selections may be available for conveyance to the state.

66. What happens to the state-selected land under designation?

Answer. The selections within the Alaska National Interest Lands Conservation Act withdrawal cannot attach until Congress has made a decision on designation. If the Squirrel River is designated, 30,736 acres identified for state selection within the proposed corridor would not be available. The remaining 50,765 acres selected by the state in the withdrawal could still be conveyed.

67. How many acres and river miles have been selected?

Answer. The state selected 93,577 acres along the main stem of the Squirrel River, the West Fork, the North Fork, and the Omar. This represents about 54 miles along the Squirrel, 15 miles along the West Fork, 4 miles along the Home Route, 36 miles along the North Fork, and 53 miles along the Omar. However, those selections within the withdrawal cannot attach until Congress has made a decision on designation.

68. Would state selection be worse for local concerns than wild and scenic river designation?

Answer. The answer to this is subjective and open to individual interpretation. State selection would make it easier for roads to be developed in the area, and would probably encourage economic development based on natural resources, particularly minerals.

69. How would state-selected lands in the area be protected if the state proceeds with disposal of 25% of state lands to private interests?

Answer. This is beyond the scope of this process, and a matter for the state.

70. Would local residents have input into state road construction?

Answer. This is beyond the scope of this process, and a matter for the state.

5.4.7 Mineral development

71. How would mineral development be affected by designation?

Answer. The Squirrel River study corridor is currently closed to entry under mining law. If the Squirrel River is designated a wild and scenic river under the Wild and Scenic Rivers Act, the area would remain closed to entry under mining and mineral leasing laws. Very little mineral potential has been identified for development within the corridor lands proposed for designation.

72. What information regarding potential mineral development is available?

Answer. The U.S. Bureau of Mines, the U.S. Geological Service, and the Alaska Department of Geological and Geophysical Survey, in addition to private mining companies, have studied the mineral development potential in the Squirrel River watershed. Available information on historic mining, mineral exploration, and mineral potential within the area proposed for designation indicates no record of any mining claims, little mineral exploration in the area, and very low potential for metalliferous minerals in the area. Based on the mineral information, public concerns expressed, and to avoid potential future conflicts in managing mine development within a wild and scenic river corridor, BLM will recommend that the area proposed for designation be closed to mineral entry.

73. Would mining in a wild and scenic river corridor be harmful?

Answer. Mining could be inconsistent with, and could a pose a threat to, the outstandingly remarkable river values for which the river would be designated.

74. What happens to existing mining claims under designation?

Answer. There are no existing mining claims within the proposed designation. If there were, they would represent a prior right, and development of the prospect could continue.

75. Would mining be allowed under a scenic designation?

Answer. No. As described in Alternatives B and C, a scenic river corridor would remain closed to mineral leasing and entry. There are no existing claims within the river area and mineral potential is low.

76. How would designation affect prospecting in the Squirrel River basin?

Answer. Designation would not affect prospecting in the Squirrel River basin. Public Law 5179 is, and would remain, in effect for land in the Squirrel River Management Unit, which is closed to mineral entry and leasing. Casual use prospecting without mechanized equipment or impacts to the river values could be allowed.

77. What is the oil and gas potential in the proposed wild and scenic river area?

Answer. BLM geologists have identified negligible potential for oil and gas resources in the Squirrel River corridor.

5.4.8 Miscellaneous

78. There is little tangible evidence of traditional use activities in the area proposed for designation; why change the status quo?

Answer. Even without designation, an increase in visitor usage is anticipated. With designation, BLM would have the tools to monitor and regulate visitor impacts on traditional subsistence activities, trespass issues and health of the resources. See question number 79 for more information on maintaining the status quo.

79. Can the existing protective management practices and withdrawals remain for ever?

Answer. No. Because assessment of the Squirrel River as a potential wild and scenic river was mandated by the Alaska National Interest Lands Conservation Act in 1980, this would amount to continued noncompliance with the Alaska National Interest Lands Conservation Act. Once BLM makes a recommendation that is forwarded to Congress, a clock starts ticking. Within three years, the river will either be designated; or, if Congress takes no further action, protective management and withdrawals will cease.

80. Why is designation, which encourages recreational uses, considered an improvement over leaving it alone?

Answer. Designation is not really considered an improvement. Leaving it alone is not an option. See the response for question 79.

81. How would archaeological sites be monitored and protected from looting?

Answer. Few archaeological sites have been identified in the Squirrel River corridor on federal land. In the event some are discovered, the BLM rangers and field personnel would be responsible for monitoring and protecting the sites, along with other monitoring and management of the corridor.

82. How is navigability determined?

Answer. Navigability is determined by a state and federal legal process. A determination of navigability has not been completed for the entire Squirrel River. However, portions of the Squirrel will probably be determined navigable in the future.

83. Who holds water rights under wild and scenic river designation?

Answer. The state of Alaska owns all water columns and the land under navigable waterways in Alaska. The Submerged Lands Act of 1953, the Alaska Statehood Act of 1958, and the Alaska State Constitution established state ownership of water columns (actual water that is in a lake or river), and shorelands (the beds of navigable rivers). Shorelands adjacent to or within Alaska Native Claims Settlement Act corporation lands are also in state ownership and subject to state management.

The Wild and Scenic Rivers Act requires the protection of water flows and water quality in designated rivers. Section 13(c) states, "Designation of any stream or portion thereof as a national wild, scenic or recreational river shall not be construed as a reservation of the waters of such streams for purposes other than those specified in this Act, or in quantities greater than necessary to accomplish these purposes." This wording indicates that, while a federal reserved water right is created when a river is designated, it shall only be for the minimum amount necessary to preserve the free-flowing condition of the river and to preserve the values for which the river was designated.

BLM will work cooperatively with the state to inventory and quantify the federal water rights under state law. Water resources of the Squirrel River would be managed to maintain the primary purposes for which the river was withdrawn.

84. Is water quality important enough to be considered an outstandingly remarkable river value?

Answer. No. It is not so much that it is not important, but that it is not outstanding in the region. Refer to response question 57 for a discussion of water quality monitoring.

85. What would be the cost of managing the wild and scenic river?

Answer. Congress would establish the level of management, which would determine cost, through their determination on designation. If the Squirrel River is designated, a river management plan will be prepared with specific management actions and costs identified. The public would participate in preparation of this plan. It would probably cost somewhere in the vicinity of $20,000 to $30,000 per year over current expenditures to implement a management plan, given the current issues and levels of use.

86. What is the relationship between the environmental impact statement and the Integrated Activity Plan?

Answer. The environmental impact statement provides Congress with the information on the environmental impacts of including the Squirrel River in the wild and scenic river system. The Integrated Activity Plan provides interim management guidance for BLM lands in the Squirrel River study area until a congressional decision is made.

87. Is a wild and scenic river designation preliminary to designating the area as a national park?

Answer. No.

88. Is the Integrated Activity Plan public? Will it attract people?

Answer. The Integrated Activity Plan is a BLM planning document. Public meetings were held in Kiana and Noorvik to solicit information from community members and to assess local concerns about the management of the BLM public lands in the Squirrel River study area. This information is incorporated into the Integrated Activity Plan. The Integrated Activity Plan planning document, which is still in draft form, will be available to the public.

89. What is scenic about the Squirrel River?

Answer. The Squirrel River provides a wide variety of regional scenery in a relatively short river length. Land form and vegetation range from a braided headwaters stream in alpine tundra typical of mountainous portions of northwestern Alaska, through a wide river valley characterized by an upland spruce-hardwood forest, in a bottomland spruce forest with occasional bluffs and mountains in the background, and then opening out to views on the lower river with the stark Kallarichuk Hills in the northeast dominating the scenery.

90. Are guides in the Squirrel River limited in number and activities?

Answer. At this point it has not been necessary to limit the number of guides to whom BLM issues permits. Hunting and fishing bag limits are set by the U.S. Fish and Wildlife Service, but BLM manages camping activities on public lands. Should it appear that wildlife inventories are adversely impacted by commercial guides, the federal Game Board has the authority to restrict hunting and fishing in affected areas to subsistence uses.

91. Can NANA select lands along the Squirrel River?

Answer. NANA cannot select the Squirrel River watershed beyond what has already been selected. The period for additional NANA selections has expired and NANA cannot change its selections now.

92. What will be the future of the settlement/leasing of lands?

Answer. Under the Seward 1008 Study Decision Record of June 15, 1983, no lands within the Squirrel River Management Unit will be made available for sale or lease.

93. Why isn't a recreational designation being considered?

Answer. Recreational river areas are those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past. This does not apply to the Squirrel River.

5.5 Scoping participants

BLM requests comments on this document from all affected parties. Listed below are some of the elected officials, agencies and interest groups from whom comments have been requested.

Elected Officials

Federal
- Senator Ted Stevens
- Senator Frank Murkowski
- Representative Don Young

State
- Governor Tony Knowles
- Speaker of the House
- President of the Senate

Federal Agencies

Department of Agriculture
- Forest Service
- Natural Resources Conservation Service

Department of Commerce
- National Marine Fisheries Service
- National Oceanic and Atmospheric Administration

Department of Defense
- Army Corps of Engineers

Department of Energy
- Alaska Power Administration
- Energy Research and Development Administration
- Federal Energy Regulatory Commission

Department of Health and Human Services

Department of Housing and Urban Development

Department of the Interior
- Alaska Public Lands Information Center
- Bureau of Indian Affairs
- Bureau of Land Management, Director
- Bureau of Mines
- Bureau of Reclamation
- Fish and Wildlife Service
- Geological Survey
- Minerals Management Service
- National Biological Survey
- National Park Service
- Office of Public Affairs
- Office of Surface Mining, Reclamation and Enforcement

Department of Transportation
Federal Aviation Administration
Federal Highway Administration
Environmental Protection Agency
Department of State
Office of Environmental Policy and Compliance

Alaska Native Councils and Corporations
Akuliuk, Inc.
Alaska Federation of Natives
Ambler Traditional Council
Arctic Slope Regional Corporation
Council Native Corporation
Kawerak, Inc.
Kiana Traditional Council
Kikiktagruk Inupiat Corporation
Kobuk Traditional Council
Koorukmeut, Inc.
Kotzebue I.R.A.
Maniilaq Association
NANA Regional Corporation
Noorvik I.R.A.
Selawik I.R.A. Council

Alaska State Agencies
Division of Governmental Coordination
Department of Natural Resources
Department of Transportation and Public Facilities

Borough Entities
Northwest Arctic Borough
North Slope Borough

Mayors
Kiana
Kobuk
Kotzebue
Noorvik

Selawik

Libraries

Library of Congress, 15 copies of final draft
DOI Natural Resources Library, 3 copies of final draft
University of Alaska Fairbanks
University of Alaska Anchorage
Noel Wein Library, Fairbanks

Local Agencies and Associations

Bering Straits Coastal Resource Service Area
Fairbanks Convention and Visitors Bureau
Kotzebue Electric Association

Interest Groups

Advocacy Council
Alaska Center for the Environment
Alaska Chamber of Commerce
Alaska Coalition
Alaska Conservation Society
Alaska Historical Commission
Alaska Historical Society
Alaska Land Act Coordinating Committee
Alaska Legal Services
Alaska Native Foundation
Alaska Miners Association
Alaska Oil and Gas Association
Alaska Outdoor Council
Alaska Professional Hunters
Alaska Recreation and Tourist Association
Alaska Riverways, Inc.
Alaska Sportsmens Council
Alaska Trappers Association
Alaska Visitors Association
Alaska Wilderness Council
Alaska Wildlife Federation
American Canoe Association
American Mining Congress

American Petroleum Institute
American Rivers
Arctic Audubon Society
Arctic Environmental Information and Data Center
Association of Village Council Presidents
Citizens Advisory Commission on Federal Areas
Fairbanks Bird Club
Fish and Game Advisory Committee
Friends of the Earth
National Wildlife Federation
Northern Alaska Environmental Center
Pacific Legal Foundation
Renewable Resource Association
Resource Development Council
Sierra Club Alaska Chapter
Wilderness Society

General Public
58 individuals

5.6 Public Comments on the Draft

Public comments—written or oral—play an integral role in the National Environmental Policy Act process. In reviewing the comments, and preparing the Bureau's responses, we found that most of the comments expressed support for the preferred alternative. Many comments expressed professional disagreement with the conclusions of the analysis, often focusing on the adjectives or adverbs that we chose to describe the manner of particular impacts. Several comments addressed factual or typographical errors. A set of comments and petitions from the Alaska Miner's Association proposed a new scope for the analysis.

Where the comments expressed professional disagreement, they were carefully evaluated. Interpretations of an analysis were based on professional expertise. It was up to the BLM State Director for Alaska, as the person responsible for the preparation of this document, to determine if a change was warranted. The fact of the disagreement is preserved in the final document because both the comment and response are shown in the following pages of this section.

Comments that pointed out factual errors resulted in changes to the text where appropriate.

The new scope identified by the Alaska Miner's Association was not incorporated in the final environmental assessment because it was not appropriate, and would have required a return to the scoping process. The rationale behind this is found on page 163.

In the remainder of this section, each written comment we received is reproduced along with our response to the comment, if necessary, on the facing page.

STATE OF ALASKA

TONY KNOWLES, GOV

OFFICE OF THE GOVERNOR

OFFICE OF MANAGEMENT AND BUDGET
DIVISION OF GOVERNMENTAL COORDINATION

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April 28, 1998

Susan Will
Squirrel River DEIS Comments
Northern District
Bureau of Land Management
1150 University Avenue
Fairbanks, Alaska 99709-3899

Dear Ms. Will:

The State of Alaska has reviewed the Draft Environmental Impact Statement and Squirrel River Wild and Scenic River Suitability Study. This letter represents the consolidated comments of the state's resource agencies.

The State of Alaska strongly supports Alternative D, the No Action alternative whereby the Bureau of Land Management would recommend that the Squirrel River is not suitable for inclusion in the national wild and scenic river system. We believe no designation is the appropriate course of action since designation would limit future opportunities for access, mining and opportunities to expand the cash economy in the area. We would also be concerned that increased recreational use resulting from a designation could lead to increased conflicts with local subsistence use, a trend common in other areas of the state.

The State also wishes to provide more detailed, technical comments on the Draft EIS, some of which stem from inadequate attempts to respond to the state's March 1997 scoping recommendations. Our detailed comments are included as an attachment to this letter and should be considered part of our formal letter. Thank you for the opportunity to provide these comments. We look forward to completion of this ANILCA mandated study process. If you have any questions, please call me.

Sincerely,

Sally Gibert
State CSU Coordinator

1

State of Alaska Comments, page 1 of 4.

Attachment to State of Alaska's April 28, 1998
Comments on the Squirrel River Draft Environmental Impact Statement

State Ownership of Squirrel River Waterway

The BLM document is not clear in the early sections of the report about ownership of the Squirrel River under the Alaska Statehood Act. For example, page 46 defines a political boundary as the upstream limit of state ownership; whereas, page 53 suggests the upper limit might be the "Big Bend". BLM should apply the Gulkana and Kandik River standard and then include that state ownership on the land status maps for each of the alternatives and in Table 2.2. 1-1

The EIS should clearly state that with or without designation of the Squirrel River as a component of the National Wild and Scenic River System (W&SRS), state ownership of the navigable waterway remains unchanged. This distinction is important in discussing BLM's ability to protect "river values" where BLM only manages upland federal land while the state owns of the river below ordinary high water.

Page 46 should explain how the character of the Squirrel River changes at the confluence with the Omar River and at "Big Bend" so that the reader can understand that the river is not floatable by "Gulkana decision" inflatable rafts above that point. In particular, the description of the Squirrel and the Omar River confluence should compare the size of the river there to that of the Gulkana River at its outlet from Paxson Lake, the Delta River below the outlet to Long Tangle Lake, and the Middle Fork at Joseph. The discussion about ownership of navigable water bodies should reference that state ownership was effective at Statehood (July 7, 1958.) 1-2

Figure 1.4 "Future state selection" as used in the map legend is inappropriate. Perhaps "pending state selection" would be more accurate. A notation is also essential to note state ownership of navigable portions susceptible to travel, trade and commerce using the Gulkana and other court, BLM and ANCAB decisions establishing the guidelines for state ownership. 1-3

Comments Stemming from Previous State Correspondence

Pages 107-114, Section 4.5. This section has not addressed the state's concern regarding the document's bias that "no designation" implies minimal protection of fish and wildlife by the state (see March 3, 1997 scoping letter.) We object to consistent language claiming that designation would provide greater emphasis on management of fish and wildlife habitat. State Title 16 requirements for protection of fisheries, and other federal and state laws, mandate protection of fish and wildlife resources. 1-4

Pages 115-116, Section 4.7. The state's March 1997 recommendation to assess conflicts between sport and subsistence users is briefly addressed in this section. Based on the document's assessment and prediction of the recreational/sport use levels, a more thorough assessment of potential conflicts may be warranted. We request the authors consult with Terry Haynes, Subsistence Division Statewide Coordinator at 907-459-7256. 1-5

2

State of Alaska Comments, page 2 of 4.

Response to comment 1-1 The text was changed to correct the discrepancy, and keep the discussion to the point. It is beyond the scope of the document to make a navigability determination for the Squirrel River, and it is not necessary for the purpose of analyzing the alternatives.

Response to comment 1-2 We have made determinations of navigability for certain stream reaches in the basin. These are discussed on page 49. State ownership of the river bed is a complex issue, delving into areas that are subject to differing legal interpretation of, for example, the doctrine of public trust and federal sovereignty. Court proceedings have made it clear that the federal government can, in particular circumstances, regulate uses of state-owned submerged lands that affect the values of designated components of the wild and scenic rivers system. We made a careful review of the professional disagreement expressed, and do not believe further discussion of this issue in the Final Environmental Impact Statement is warranted. A discussion on this topic would needlessly complicate the document, adding dozens of pages, and would reach no conclusions helpful to the decision maker. It is noteworthy that most components of the national wild and scenic rivers system do include state-owned submerged lands, and where the uplands are federally owned the managing agencies nonetheless have protected river values.

Response to comment 1-3 The suggested change was made.

Response to comment 1-4 The comment indicates that the document is biased. After a careful review of the professional disagreement expressed, we do not believe changes are warranted based on this comment. We do not agree the document is biased, nor that it "implies" minimal protection of fish and wildlife by the state. We have the greatest respect for the state commitment to management and protection of fish and wildlife habitat and populations. We do believe that designation would provide greater emphasis on management of fish and wildlife habitat, because it would bring both federal and state attention to the area, and make it a federal priority to protect this habitat.

Response to comment 1-5 We contacted Dr. Haynes. He agrees that the Section 810 analysis is complete and adequate. We have added to the discussion of current hunting patterns in chapter 3.

A discussion regarding the impacts of pending federal subsistence management into navigable waters is not addressed in the draft, although such a discussion was recommended by the state. We again request examination of this topic. 1-6

Pages 59-61, Section 3.5.6. The State does not believe that the Squirrel River Watershed Mineral Development Scenarios can be considered complete without consideration of the information in the documents below, as previously suggested by the Alaska Department of Natural Resources Division of Mining and Water.

Division of Geological and Geophysical Survey (DGGS) Public Data File 85-42e; NW Alaska Land Use Plan - Mineral Potential

DGGS Public Data File 85-42c; NW Alaska Land Use Plan - Infrastructure 1-7

DGGS Public Data file 93-22; Squirrel River Evaluation Unit 22 - Baird Mountains, Selawik and Noatak Quadrangles, Northwest Alaska: Geologic Summary and Bibliography

DGGS Public File 93-39c; USGS AMRAP Geochem Data for Baird Mountain Quad

USBM Mineral Land Assessment Reports 109-82; Cobalt Content in Samples Form the Omar Copper Prospect, Baird Mountains, Alaska.

Other Page-Specific Comments

Pages 1-2, Section 1.1.1. The EIS should note the history of the original Squirrel River withdrawal and indicate whether the area was open to entry under the federal mining laws until such time as the state filed its selection. 1-8

Page 20, Table 2.1, footnote b. It would be more accurate to say that the river corridor is limited to an average of 640 acres a mile. In all of the BLM administered Wild and Scenic Rivers in Alaska, the actual boundaries sometimes exceed a distance of one mile back from the river edge but do not exceed an average of 640 acres per river mile. 1-9

Page 33, Section 2.2.7. Is it Public Land Order (PLO) 5197 or PLO 5179? (See page 80) 1-10

If the Secretary of the Interior agrees with the BLM's preferred Alternative D and Congress takes no action, then the purposes of the PLO would no longer be valid. If the PLO were valid then no other land transfers, including those valid state and NANA selections, would be possible. BLM should clarify its intentions for deleting the PLO under Alternative D, or any other Alternative not approved by the Congress, or for lands outside the boundaries of a designated unit of the W&SRS but still within the PLO. The statement that the protection provided by the study river designation expires automatically, thereby implying no protection, is in conflict with the statement on page 33 that the PLO prohibits any disposal and any entry under the federal mining laws and the federal mineral leasing act of 1920. 1-11

3

State of Alaska Comments, page 3 of 4.

Response to comment 1-6 This topic is beyond the scope of the analysis.

Response to comment 1-7 These references were reviewed during preparation of the draft document, and again in response to the comment. No change is warranted. An environmental impact statement is not a literature review, and there is no reason to refer to every possible document. We do not believe these technical papers have anything to add to the analytical conclusions.

Response to comment 1-8 The section referred to is in the Introduction, which is necessarily condensed. A complete discussion of the land status history is found in Section 3.3.1.

Response to comment 1-9 The suggested change has been made.

Response to comment 1-10 The wording has been changed. It is PLO 5179.

Response to comment 1-11 The wording has been changed to make clear the fact that the PLO withdrawal exists independently of the statutory withdrawal pursuant to the Wild and Scenic Rivers Act.

Page 47-48. For appropriate context, we suggest reference to the total congressionally authorized designations in Alaska (totaling approximately 106 million acres exclusive of navigable inland waters and tide and submerged land.) 1-12

Page 55, Section 3.5.2. Regarding the reference to "only two" anomalies, we recommend deleting the word "only", especially since known mineralization in the study area has higher copper values than the other non-Squirrel basin mineral deposits discussed. (See page 58.) 1-13

Pages 57, 59, 68, Sections 3.5.3, 3.5.5, 3.5.6, and 3.8.4. A discussion about mineral deposit modeling and timing is incomplete without reference to the status of the availability of minerals in the region. For the past 27 years the Squirrel study area has been closed to mineral entry under the federal mining laws. The existence of 19 state selected mining claims and 17 state selected prospecting sites currently active in the Squirrel watershed should be acknowledged. 1-14

Pages 77 and 95. The EIS should be revised to rectify a discrepancy, e.g., the page description of water quality that is "probably not ideally suited for fish culture" and the statement of page 95 regarding an "outstandingly remarkable" fishery resource. 1-15

Pages 85-86, Section 4.2.2. ANILCA Title XI procedures are cumbersome and potentially protracted and costly. Given the general process that was used to provide access to the Red Dog Mine, it does not seem reasonable to imply that Title XI will automatically protect the state's future ability to reach its land base. The Conclusion on page 86 should read "It would substantially inhibit...." 1-16

Pages 88-89, Section 4.2.4. The rationale for BLM proposing a scenic river area designation while prohibiting the reasonable operation of the federal mining laws with appropriate environmental protection is not clear and contrary to the Wild and Scenic Rivers Act. Also prohibiting mineral use is inconsistent with the scenic and recreational segment designations in the River Management Plan for the Fortymile River as approved by the Congress. The conclusion on page 89 is misleading to reference the fact that there are no active federal mining claims. The area has been withdrawn from the operation of the federal mining laws for the past 27 years has a direct and significant adverse impact on the extent of mineral activity on federal land in the study area. 1-17

Page 99, Section 4.3.4. The discussion does not adequately analyze the impact on development of known mineral areas on state land shown in Figure 3.2. For example, what alternative access routes to state land were considered by BLM? 1-18

Page 114, Section 4.6. Access to state land would be significantly impacted under Alternatives A, B, and C. The cumulative impact of this restriction should be further assessed. We do not agree with the EIS assessment that resource investment on state and local Native corporation lands would be only "slightly less likely". The EIS should also further address the impact of increased use by non-local residents following designation of the Squirrel as a component of the National Wild and Scenic Rivers System. 1-19

4

State of Alaska Comments, page 4 of 4.

Response to comment 1-12 After careful consideration, we do not think a change is warranted. Writing about the state-wide context at this point in the document, when we are discussing the specific history of land status in the Squirrel River Drainage, is not appropriate.

Response to comment 1-13 The suggested change was made.

Response to comment 1-14 After careful review we do not find a change to be warranted. The discussion in these sections is already, and admittedly, quite speculative. We think listing state selected mining claims and prospecting sites would not add to the predictive power of the analysis.

Response to comment 1-15 There is no discrepancy. The value for fish was determined to be outstandingly remarkable, while the habitat is not believed to be ideal for growing fish.

Response to comment 1-16 After careful review we do not find a change to be warranted. The conclusion of the document is that scenic designation would inhibit the development of access corridors identified. The commenter agrees. Changing the adverbs coloring this conclusion is not needed.

Response to comment 1-17 After careful review we do not find a change to be warranted. In describing alternatives pursuant to the National Environmental Protection Act we are simply outlining a range of possibilities, not making proposals. The best available information does indicate that placer and lode prospects in the river area are poor.

Response to comment 1-18 After careful review we do not find a change to be warranted. The speculative nature of any conclusions about future mineral or transportation system development is clearly and repeatedly acknowledged in the document. In general, the analysis concludes such development is unlikely in the reasonably foreseeable future.

Response to comment 1-19 Refer to the response to comment 1-18. As stated in the document, we do not think designation would lead to an increase in use by non-local residents. This is based on experiences on other components of the national wild and scenic rivers system in Alaska, and on the fact that the area is already essentially saturated with non-locals during hunting season.

Citizens' Advisory Commission on Federal Areas

3700 Airport Way
Fairbanks, Alaska 99709-4699
(907) 451-2775
Fax: 451-2761

April 28, 1998

RECEIVED
BLM NRDO
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FAIRBANKS, AK

Susan Will, Project Coordinator
Squirrel River Wild and Scenic River Study
Bureau of Land Management
Northern District Office
1150 University Avenue
Fairbanks, AK 99707

Dear Ms. Will:

The Citizens' Advisory Commission on Federal Areas has reviewed the Squirrel River Wild and Scenic River Suitability Study Draft Environmental Impact Statement (DEIS). Based upon that review, the Commission fully supports Alternative D, the Bureau of Land Management's preferred alternative for no designation of the Squirrel River as a component of the national wild and scenic river system. The Commission's current support for a no designation alternative remains unchanged from our previous position on the 1984 draft study and DEIS prepared by the National Park Service.

The Commission appreciates the extensive efforts made by the BLM study team to consult with and involve the public, state agencies, various user groups and, in particular, local residents and organizations during the completion of this study. More importantly, the BLM is to be commended for its responsiveness to local concerns about the potential impacts from designation of the Squirrel as a wild and scenic river. We are also pleased that the study team recognized the importance of the state selection of much of the Squirrel River for potential transportation corridors and that designation would complicate or even preclude any future development of those corridors.

Our review found few problems with the DEIS. However, we do have a couple of comments on one section of the document. In Section 4.5 "Impacts from Implementing Alternative D," the reader is left with the impression that fish and wildlife populations, habitat and subsistence opportunities will be adversely impacted if selected lands within the proposed river corridor are conveyed to the State of Alaska. In fact, past experience with wild and scenic rivers indicates that designation increases overall public use and competition for resources that otherwise would not exist. 2-1

While the State would manage these lands differently than would the BLM if the Squirrel is designated and remains in federal ownership, the State is mandated by both

Citizens' Advisory Commission on Federal Areas Comments, page 1 of 2.

Response to comment 2-1 Refer to the response to comments 1-4 and 1-19.

its constitution and State statutes to maintain healthy fish and wildlife populations, as well as habitat for those populations. Properly planned and designed transportation corridors and resource development projects would pose no serious threats to the resources of the Squirrel River.

We also question the statements in Section 4.5.6 "Impacts on Subsistence" that: "The lack of designation would reduce the opportunity to provide essential data to make sound decisions regarding the management and conservation of those resources which in turn would ensure the continuation of a subsistence lifestyle on the remaining federal lands." The BLM will have the same management responsibilities and obligations for lands remaining in federal ownership regardless of the future disposition of the Squirrel River. Further, the rural preference mandated by ANILCA Title VIII applies to all federal lands in Alaska, whether those lands are within designated conservation system units or not. 2-1 (cont.)

This same section also incorrectly states that new rights of way and transportation corridors would be subject to NEPA analysis only on federal lands in the corridor. Any action on State lands which impacts wetlands, navigable waters, or which involves federal funds, is subject to NEPA compliance. 2-2

In conclusion, the Commission supports the BLM's decision to recommend no designation of the Squirrel River. We encourage the BLM and the Department of the Interior to act quickly to conclude this study and submit the final recommendation to Congress so that the withdrawal of the lands within the study corridor can be lifted. The Commission appreciates the opportunity to provide these comments. If there are any questions please contact our office.

Sincerely,

Stan Leaphart

Stan Leaphart
Executive Director

cc: Senator Ted Stevens
Senator Frank Murkowski
Representative Don Young
Governor Tony Knowles
Senator Mike Miller
Representative Gail Phillips
Commissioner John Shively

Citizens' Advisory Commission on Federal Areas Comments, page 2 of 2.

Response to comment 2-1 Refer to the response to comments 1-4 and 1-19.

Response to comment 2-2 The wording of section 4.5.6 has been changed for clarity.

ALASKA MINERS ASSOCIATION, INC.
3306 Arctic #202, Anchorage, Alaska 99503 FAX: (907) 563 9225 Telephone: (907) 563-9229

April 22, 1998

Squirrel River DEIS Comments
Attn: Susan Will
BLM Northern District
1150 University Avenue
Fairbanks, AK 99709-3899

RE: Squirrel River W&SR Suitability Study DEIS

Dear Ms. Will,

Thank you for the opportunity to comment on this Draft Environmental Impact Statement for the Squirrel River Wild & Scenic River Study. **The Alaska Miners Association supports the agency's preferred alternative, Alternative D, which will not result in any Wild & Scenic River designations in the Squirrel River area.** We also wish to thank the study team for their efforts to understand the impacts of designation on mineral development possibilities for the area. Some of our comments below seek to clarify these issues even further.

We concur with the BLM that no designation of the Squirrel River or any of its tributaries should be made and that **no designation is in the best interests of the local residents and the people of the United States in general.**

However, on page iii under Summary of Major Conclusions the discussion is not correct on several points. First, W&SR designation would not only complicate development of a mine, it would likely mean that companies would not even explore for minerals in the area. Throughout the country, federal Conservation System Unit (CSU, i.e., parks, preserves, etc.) designations have been used as a ploy to block development on adjacent lands. Adding this fact to the remoteness and lack of infrastructure in the Squirrel River area would very likely be the death knell for exploration. Exploration monies are scarce in this time of low metals prices and areas with added complications will be bypassed. We therefore suggest adding the following underlined addition and modifying the remainder of the section to carry this same thought:

3-1

> "..Wild and scenic designation would add complexity and uncertainty to the development of such a mining prospect and would likely eliminate any interest in exploring the area by most individual prospectors as well as major mining companies."

We also disagree with the phrasing of the second item under "Issues to be Resolved" and recommend the following change:

> "...Designation would foreclose conveyance of some land to the state, and [might] would almost certainly curtail economic development tied to mining or road building".

1

Alaska Miners Association Comments, page 1 of 3.

Response to comment 3-1 Refer to the response for comments 1-17 and 1-18.

The 6th item under "Issues to be Resolved" lists allowable uses as "...protect existing use of snowmachines, airplanes, and boats". What about ATVs? Does this mean that if a designation were to be made ATVs would not be allowed? This item needs to be changed to ensure that ATVs are included in the list of uses that are allowed/protected. 3-2

The 7th item regarding estimated cost to the United States is severely understated. If a designation were to be made, there would be proposals for intensive oversite, management and enforcement costing far more than the "$20,000 to $30,000 per year" shown. The DEIS references enforcement, collection of visitor statistics, water monitoring, etc. A very minimum would be two full-time employees (one enforcement and one other), an office and an airplane and a power boat at least part of the time. 3-3

Table 2.1 summarizes the corridor acreages for the alternatives. The table is technically correct regarding the number of acres of State selections that would become valid. However, if designations were to occur, some of those selections would be isolated and extremely inaccessible and although they could be transferred to the State, the value to the State would be significantly decreased.

We agree wholeheartedly with the statement on the bottom of page 20 where the people from the area comment that they "...are concerned that designation...would "lock up" the last large block of land in the area that would be available for economic development activities, such as mining and tourist lodges."

On page 24 there is reference to valid existing rights of eight Native allotments. We agree that recent purchases of private land have been on a willing buyer / willing seller basis. However, this section should be expanded to describe how changing "management guidelines", regulations, policies, etc. can and will almost certainly occur and how these would bring new requirements and restrictions to these Native allotment inholders. This process is a fact of life for any inholder and full disclosure to the public requires that this be included in the DEIS. The next paragraph even states that visitor statistics would be used in developing use "guidelines" to control usage of the area. 3-4

Table 2.2 summarizes management actions for the alternatives. Under "Land Use" for Alternative A it states that "Some development would be allowed in the river areas" and this is technically correct. However, experience has shown that any designation will be a tremendous burden and this should be changed to "...may be allowed in the river area but will be extremely difficult." 3-5

Also under Alternative A, ATVs need to be specifically mentioned as being allowed. 3-6

Under Alternative B Mineral development, reference is made to later withdrawal of up to 88,824 acres if the State selections are dropped. This reference should be removed from the table. We do not find this concept of future closures discussed or referenced anywhere in the document. Such future hypothetical closures have no place in this DEIS. 3-7

Under Alternative B for Socio-economic conditions, it states that "Limits on road construction may limit economic development in the future". This is an extreme understatement and should 3-8

Alaska Miners Association Comments, page 2 of 3.

Response to comment 3-2 All terrain vehicles were not identified as an issue during scoping.

Response to comment 3-3 After careful consideration we determined no change was necessary. We made our estimate of the additional cost to the government based on current expenses on similar remote rivers in the national system, and think these estimates are reasonable.

Response to comment 3-4 After careful consideration we decided the existing discussion was adequate in describing the effects on Native allotments.

Response to comment 3-5 After careful consideration we decided the existing discussion was adequate and correct.

Response to comment 3-6 The alternatives are designed to frame a range of action for the analysis. All terrain vehicles were not identified as an issue during scoping, and the analysis would not be affected by acting on this comment.

Response to comment 3-7 Alternative B, as described in section 2.2.5 and Figure 2.2, clearly proposes future designations if particular selections are relinquished. This alternative was developed to provide a full range of alternatives, as required. The alternative has not been changed.

Response to comment 3-8 Refer to the response to comment 1-18.

be changed to reflect the elimination of any roads, unless the very cumbersome ANILCA Title XI is followed. 3-8

Management actions for wild designation on page 29 contains some mis-leading statements. The phrase "New rights-of-ways ...would be *discouraged* unless specifically authorized..." is an extreme understatement. The phrase should be changed to read "New rights-of-ways...would be impossible unless specifically authorized through use of ANILCA Title XI or a special Act of Congress." 3-9

On page 59 I think you mean to reference "...DC-3, DC-6, or C-130 aircraft". A DC-3 is the commercial version of a C-47 but I have no idea what a "C-49" is. 3-10

The second paragraph on page 60 seems to imply that because no claims were filed during a few brief periods when the land was open to mineral entry, the area must not be of much interest to mineral companies. Rather, this is prime evidence of the chilling effect caused by even the possibility that the river areas may have a Wild & Scenic River designation. Also, prior to Red Dog beginning operation, many in the industry did not believe that a major large mine could be permitted anywhere in Alaska. Also, staking claims on any federal land during this period was being impacted by the attacks in the congress against the general mining laws. It follows that staking in remote, expensive areas with no infrastructure would also be low. The result of any one, let alone all three of these factors, would have been enough to stop the high cost "grassroots" exploration needed in the Squirrel River drainage.

As a final comment, we request that the Record of Decision specify that all existing public lands orders be terminated so existing State and Native land selections can attach. Further, so that lands under the public land orders that are not covered by selections now, and any lands now under selections which may at be removed in the future, will then be open to mineral entry under the general mining laws. I.E., that all lands would return to their unencumbered pre-ANILCA, status without affects of the public land orders. 3-11

Thank you for the opportunity to comment on this important document.

Sincerely,

Steven C. Borell, P.E.
Executive Director

3

Alaska Miners Association Comments, page 3 of 3.

Response to comment 3-8 Refer to the response to comment 1-18.

Response to comment 3-9 Refer to the response to comment 1-18 and 1-16.

Response to comment 3-10 We changed C-49 to C-47.

Response to comment 3-11 This is beyond the scope of the analysis. The purpose of this document is to determine if the Secretary of the Interior should tell congress that some portion of the Squirrel River or its tributaries is a worthy addition to the national wild and scenic rivers system. To expand the purpose to include a review of future land management throughout the basin would require a more complex analysis and a return to the scoping level of the process. Rather than broaden and delay the project, we decided not to consider this suggestion further. It would be more proper to address this issue during development of a land use plan for the area in compliance with the Federal Land Policy and Management Act, rather than during a single-purpose study and environmental analysis.

P.O. Box 101811
Anchorage, AK 99501
April 28, 1998

Squirrel River DEIS Comments
Northern District
Bureau of Land Management
1150 University Ave.
Fairbanks, AK 99709-3899

Dear Bureau of Land Management:

I have reviewed your draft EIS on the Squirrel River Wild and Scenic River Study. I am disappointed in all the alternatives. Instead, I support one that would make the entire study area a "Wild" River. Of the alternatives described, I most support Alternative B, but it still does not provide adequate protection for the unique, wild characteristics of this river system.

I am very disappointed that BLM proposes to recommend an alternative that would remove the interim protection and federal mineral withdrawals afforded by the Alaska National Interest Lands Conservation Act (ANILCA) study river status. In fact, I believe that BLM has dramatically downplayed the full negative impacts and ramifications of its decision. The decision not to recommend any protection for this river system under the National Wild and Scenic River Act will open up this area to mining, permanent access roads, and the ability of the State to sell off the lands that it selects to private owners.

The national interest of this land area will not be upheld by the BLM's proposed action. This action will permanently change both the landownership status and the land management priorities (e.g. river conservation and subsistence will no longer be the priority). Because this river was designated by Congress as a Wild and Scenic Study River by ANILCA, its extraordinary wild character has been known for over a decade. This proposed action sets a very bad precedent for not upholding the conservation promises of ANILCA.

The DEIS fails to adequately describe the impacts of the proposed action to river area's wild character and wilderness values and to the fish and wildlife habitats of the river, riparian areas, and the entire ANILCA withdrawal area. It does not describe the future impacts of mining and construction of transportation corridors. Because the removal of the federal mineral withdrawal would be permanent, impacts from these activities well into the future must be considered. Furthermore, State maps show the existence of placer gold deposits in the area and potential future road access corridors here. The DEIS must evaluate the effects of gold mining and other mineral extraction in this area. 4-1

The DEIS and ANILCA Section 810 Evaluation and Finding are completely flawed and inadequate with respect to the long-term effects on wildlife habitats and resources, availability for subsistence, and negative effects on subsistence users. The subsistence priority that exists under the current federal status would be removed. The federal government cannot ensure that such a priority would exist under future state (or private) ownership. Therefore, the analysis needs to be completed again to fully reflect the significant impacts that could result from loss of this legal priority. 4-2

In conclusion, I am very disappointed that the Clinton Administration is proposing to declassify an ANILCA Wild and Scenic study river. This will be a permanent loss for the American public and for Alaska

Sincerely,
Pamela A Miller
Pamela A. Miller

Pamela A. Miller Comments, page 1 of 1.

Response to comment 4-1 Refer to the response to comment 1-18. We have done our best to analyze the potential for future mineral development. Some commenters think we understate this potential, while others think we overstate it. After careful consideration, we decided that a change in the analysis is not warranted based on this comment.

Response to comment 4-2 Refer to the response to comments 1-4, 1-5, and 1-19. Analysis of the potential effects of the alternatives in the long-term is problematic. On subsistence issues we paid a lot of attention to the desires of the people of Kiana. We do not believe a change in the analysis is warranted based on this comment.

RECEIVED
BLM NDO
98 APR 27 PM 12:46
FAIRBANKS, AK

April 23, 1998

Susan Will, project coordinator
Bureau of Land Management
Northern District Office
1150 University Ave.
Fairbanks AK 99707

Re: Squirrel River DEIS

Dear Ms. Will:

Here are my comments on the Squirrel River DEIS. I approve of the preferred alternative, no designation, as described by BLM.

1. As the draft indicates, there are a number of land owners in the adjacent areas which would have conflicting management goals from BLM, if BLM designated the area as a Wild and Scenic river. This would increase the costs to BLM to monitor the designation, and decrease the effectiveness of the designation. A Wild and Scenic river designation is a limiting designation, which seems to have only one management goal, the preservation of an area so that tourists and others can look at the area. Uses of the land which affect this "visual preservation" goal are just tolerated and regulated. The designation does not belong in the Squirrel River area where numerous land owners and citizens would like to use the land, instead of just looking at it.

2. Given that there is almost unanimity among the people immediately affected by the designation that there should be no designation, I am encouraged that BLM chose to respect the wishes of the local people.

3. At page 89 of the page, the draft states that the designation would have an indirect adverse impact by adding to the costs and uncertainty to developing properties outside of the corridor. This downplays the impact. The Squirrel River is an important waterway with access trails and use. Those routes can turn out to be a critical part of developing a mineral resources because they provide access. Designation limits access, which may directly affect whether resources and be developed. 5-1

Thank you for the opportunity to comment.

Sincerely,

Joan Travostino
420 L Street, Suite 400
Anchorage AK 99502

Joan Travositno Comments, page 1 of 1.

Response to comment 5-1 Refer to the response to comment 1-18.

April 24, 1998

Roy A. Barr Sr., Agent
Amigaq Coppermine
P.O. Box 73
Noorvik, Alaska 99763-0073

RECEIVED
BLM NDO
98 APR 30 PM 12:41
FAIRBANKS, AK

Squirrel River DEIS Comments
ATTN: Susan Will
BLM Northern District
1150 University Avenue
Fairbanks, Alaska 99709-3899

RE: Squirrel River Wild & Scenic River Study

Dear Ms. Will;

Thank you for doing a comprehensive study on the Draft Environmental Impact Statements for the Squirrel River Wild & Scenic River Study, and making a decision of rec omending ALTERNATIVE D, based on the consensus derived from the DEIS team. Democracy derived from arrogant parties is what makes America works.

Although, the intentions of designating Squirrel River as a Wild & Scenic River had good intentions for the government, but when consensus of all thc populas involved in the impact area says that it is not suitable and recommends Alternative D, no designation, should not a stronger speedier action be undertaken, instead of waiting for the Alaska National INterest Lands Conservation Act withdrawl to expire?

There is approximately 81,501 acres of community and general purposes State GRant selection, and 15,137 acres of NANA lands that are in contention, which were granted under the Alaska Native Claims Settlement Act of 1972, which were chosen by these interest groups to promote the much needed economic structure to this economic depressed region.

NANA region is surrounded by only restrictive land laws that eliminates and discourage private developement only to specific groups. To me, this practice does not seems a democratic way. Lands for developement is SCARCE, due to restrictive status of these lands, if, all the lands in this region becomes restrictive only to a specific groups that have the lands restrictive to thier only concerns, the freedom of the general public in the effected areas, the freedom of thc gcncral public to excercise thier rights as Americans is in jeopardy. Not only that, but freedom for

Amigaq Coppermine Comments, page 1 of 2.

free enterprise, where competion becomes restrictive to monoply, usually leads to temptation of breaking the rights of individuals.

In conclusion, I support your decision of ALTERNATIVE D, of no designation and supports no action because there is no other alternative to support my decision.

Again, thank you and the DEIS team for implamenting the Draft Environmental Impact Statement and for excepting my comments during your Kiana trips for consideration.

Sincerely,

Roy A. Barr Sr.
Agent for Amigaq Coppermine

Amigaq Coppermine Comments, page 1 of 2.

Cominco Alaska Incorporated / Red Dog Mine / P.O. Box 1230 / Kotzebue, Alaska 99752 / Tel. (907) 426-2170

RECEIVED
BLM NDO
98 APR 30 PM 12:40
FAIRBANKS, AK

Cominco Alaska
A Subsidiary of Cominco American Incorporated

April 25, 1998

Ms. Susan Will
Squirrel River DEIS
Northern District BLM
1150 University Ave
Fairbanks, AK 99709-3899

Dear Ms. Will:

Cominco Alaska Incorporated would like to take this opportunity to comment on the Squirrel River Wild & Scenic River Evaluation and DEIS. Cominco Alaska Incorporated operates the Red Dog Zinc and Lead Mine and Port Facility located within the Wulik River Basin. Cominco's presence in the NANA Region has greatly increased the local and state cash economies.

Cominco Alaska Incorporated does not believe that a "Wild & Scenic River" designation is necessary to protect the Squirrel River ecosystem. The agency's preferred alternative, alternative D, coupled with existing State and Federal Regulations provides adequate protection for the Squirrel River and allows responsible development and multiple use to occur. Cominco supports the needs of local citizens to maintain control and flexibility in order to provide development of a cash economy while preserving subsistence options.

Thank you for the opportunity to comment on this DEIS. I support the BLM's decision to keep this area open for multiple use.

Sincerely,

John L. Key, General Manager
Red Dog Mine

Cominco Alaska Comments, page 1 of 1.

RICK J. SCHIKORA
CERTIFIED PUBLIC ACCOUNTANT

1416 GILLAM WAY
FAIRBANKS, ALASKA 99701

(907) 456-1566

April 19, 1998

BLM
1150 University Avenue
Fairbanks, AK 99709

Attn: Squirrel River Folks

Dear Sir or Madam:

Please don't screw up the Squirrel River by making it a wild and scenic, or a wild, or a scenic, river. I've been there. It's too far a pretty place for you to designate. That would cause all sorts of people to go there and mess it up. Leave the river alone.

Thanks for your time.

Sincerely,

Rick Schikora

RECEIVED
BLM NDO
98 APR 21 PM 1:39
FAIRBANKS, AK

Rick Schikora Comments, page 1 of 1.

Tommie Sheldon, Jr.
Kiana Elders Council
Regarding Squirrel River
April 8, 1998

On behalf of the kIana Elders Council and the Regional Elders, I would like to put this in writing and also speak about the Squirrel river issue.

Wild and Scenic River ..... people will come. They will interfere us. Because there will be lots of people canoeing, you name it, they will bother us. Right now we don't want Wild and Scenic River.

There are good and bad sides to no designation of the Squirrel River. If it were designated, then we have the problem of too many non-local visitors. They would interfere with our hunting, fishing and gathering. We would see them acting like they owned the place. Also, it is important that we not be restricted in how we use the area. We should be able to use any method of transport that we want. Squirrel River is the place where we have good water, caribou, fish, berries, everything....

It feel like we are taking a chance if the State claims ownership of land there. We hear of mineral development, roads, land lotteries and all that. The State people never did come and talk to us about their plans. Only time will tell...

I have spoken about these things before. I am still saying the same thing. We need to remember there are old dwellings and graves. Always, we have to protect them. And we have to protect our use of that area.

I am concerned about the lives of my children, grandchildren and great-grandchildren. Their lifestyle should not have to change regarding subsistence ways of life. If the squirrel river is changed to wild and scenic river, their subsistence lifestyle will be affected.

Tommie Sheldon Comments, page 1 of 1.

My Comments on the Draft Environmental Impact Statement for the Squirrel River Wild and Scenic River Study

The BLM needs your comments on the Squirrel River Wild and Scenic River Study, particularly any information you have that would correct errors or omissions in the description of the affected environment or the impacts to it as stated in the Draft EIS. Send this form or a letter to the address on the back by **April 28, 1998.** You may also make comments by email to: swill@ak.blm.gov.

Privacy Note: Comments, including names and street addresses of respondents, will be available for public review at the Fairbanks BLM office during regular business hours (7:45 a.m. to 4:30 p.m. Monday through Friday, except holidays) and may be published as part of the Final Environmental Impact Statement. You may request confidentiality. If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, please check the appropriate box below. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

Your input is very important, because the BLM wants to be sure everyone has a voice in the decision.

☐ **It is OK to release my name and street address to the public with these comments.**

☐ **I do not want my name and street address released to the public with these comments.**

I agree with your recommendation of Alternative D (no designation) as the preferred Alternative.

Name (please print) DON C TOMLIN, PH.D. Date: 3/20/98
Street address or P.O. Box 1675 C ST
City, State, Zip Code ANCHORAGE, ALASKA 99501-5198
I represent BUREAU OF INDIAN AFFAIRS (NATURAL RESOURCES)

☐ I want to be removed from the Squirrel River mailing list.

Don C Tomlin Comments, page 1 of 1.

My Comments on the Draft Environmental Impact Statement for the Squirrel River Wild and Scenic River Study

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☒ **It is OK to release my name and street address to the public with these comments.**

☐ **I do not want my name and street address released to the public with these comments.**

In viewing all the alternatives and their impact, I would definately have to go with alternative B, my reasons I would have to agree with BLM that there is very little use of this river system except during the month of September. The other alternatives would be a disaster look at us for a lot of the natives for miners mining and also for commercial outfitting and guiding. I think in general the public would suffer most if any of the changes anything but alternative B, No Action

Thanks Ron Aldridge

Name (please print) Ronnie Aldridge Date: 3-11-98
Street address or P.O. Box P.O. Box 3024
City, State, Zip Code Soldotna AK 99669

I represent _____

☐ I want to be removed from the Squirrel River mailing list.

Aldridge comments, page 1 of 1.

ALASKA MINERS ASSOCIATION, INC.

RECEIVED
BLM NDO
98 MAY 11 AM 10: 31
FAIRBANKS, AK

Squirrel River DEIS Comments
Attn: Susan Will
Northern District, BLM
1150 University Avenue
Fairbanks, AK 99709-3899

April 24, 1998

Re: DEIS on Squirrel River W&SR Suitability Study

Dear Ms. Will,

We the undersigned support Alternative D of the Draft Environmental Impact Statement for the Squirrel River Wild & Scenic River Study which does not include any Wild & Scenic River designations for the Squirrel River drainage. We also ask that the Record of Decision include provisions to remove all public land orders and return the area to its pre-ANILCA status as rapidly at possible

Very truly yours,

Signature	Printed Name	Address
	Jeffrey Y. Foley	200 Lake Otis Pkwy Anchorage AK 99508
	Thomas C. Crafford	3000 Princeton Way, Anch, AK 99508
	GERALD G BOOTH	2941 CARSTAN DR, ANCHORAGE, AK. 99516
	Roy W Michael	650 W. 58th Ave, Anch, AK 99518
		3512 Campbell Airstrip Rd Anchorage AK 99504
		P.O. Box 112928 ANCH 99511
	CHARLES B ULSRUD	640 HIGHLANDER CIRCLE ANCH, AK 99518
	Paul S Glavinovich	PO Box 112516 ANCH AK 99511
	Donald L Stevens	1048 W. Int'l Airport Rd. Anch. AK 99518
	DAVID S. MANZER	5331 Tudor Top Circle, ANCHORAGE, AK 99507
	MADELYN A. MILLHOLLAND	1290 Mielke Rd POBox 110691 Anchorage, AK 99511
GREGORY A. BEISCHER		15711 STANWOOD CIRCLE, ANCHORAGE, AK 995

Alaska Miners Association Petition, page 1 of 1.

ALASKA MINERS ASSOCIATION, INC.

RECEIVED
BLM MDO
98 APR 29 PM 1:58
FAIRBANKS, AK

Squirrel River DEIS Comments
Attn: Susan Will
Northern District, BLM
1150 University Avenue
Fairbanks, AK 99709-3899

April 24, 1998

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Very truly yours,

Signature	Printed Name	Address
Irene Anderson	Irene Anderson	Box 905 Nome AK 99762
Mitch Erickson	Mitch Erickson	Box 1967 Nome AK 99762
Bruce Tweet	BRUCE TWEET	BOX 1126 NOME, AK 99762
Kathi Tweet	KATHI TWEET	BOX 1126 NOME AK 99762
Douglas Tweet	Doug Tweet	Box 1712 Nome AK 99762
Vicki Tweet	Vicki Tweet	Box 1712 Nome, AK 99762
Calvin Iyatunguk	Calvin E. Iyatunguk Jr.	Box 1867 Nome 99762

Alaska Miners Association Petition, page 1 of 1.

ALASKA MINERS ASSOCIATION, INC.

RECEIVED
BLM NDO
98 APR 27 PM 12:48
FAIRBANKS, AK

Squirrel River DEIS Comments
Attn: Susan Will
Northern District, BLM
1150 University Avenue
Fairbanks, AK 99709-3899

April 24, 1998

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Very truly yours,

Signature	Printed Name	Address
	ALBERT H. CLOUGH	Bx 1003 DOUGLAS AK 99824
	Mitch Henning	PO. Box 590021 Big Lake AK 99652
	RALPH C. HUNT	RALPH C. HUNT 2616 DOUGLAS HWY #205 JUNEAU, AK 9980
	JERRY HARMON	4322 COVE PLACE 99801
		PO Box 32412 JUNEAU AK 9
	Roy Kyle	123 Seward St. Juneau, AK 998
	JOHN A. SANDOR	PO BOX 21135 JUNEAU AK 99802
	PAUL H. RICHARDS	217 2nd St Juneau, AK 9980
	Lawrence A. Dunneen	423 East St Juneau, AK 9980
	Anthony W. Williams	9029 Rosedale, Juneau, AK 99801
	DAVID CARNES	3211 Pioneer Ave, Juneau AK 99801
	CHARLOTTE WICKERSON	PO Box 35094 Juneau 9980

Alaska Miners Association Petition, page 1 of 1.

ALASKA MINERS ASSOCIATION, INC.

Squirrel River DEIS Comments
Attn: Susan Will
Northern District, BLM
1150 University Avenue
Fairbanks, AK 99709-3899

April 24, 1998

Re: DEIS on Squirrel River W&SR Suitability Study

Dear Ms. Will,

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Very truly yours,

Signature	Printed Name	Address
[signature]	HJ Sayer	PO Box 240411, Douglas Ak 99824
[signature]	Paul C Rusanowski	628 Basin Rd Juneau 99801

Alaska Miners Association Petition, page 1 of 1.

ALASKA MINERS ASSOCIATION, INC.

RECEIVED
BLM MDO
98 APR 27 AM 11:07
FAIRBANKS, AK

Squirrel River DEIS Comments
Attn: Susan Will
Northern District, BLM
1150 University Avenue
Fairbanks, AK 99709-3899

April 24, 1998

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Very truly yours,

Signature	Printed Name	Address
	Donald J. Mayfield	4595 Woodley Dr Fbks. AK 99709
	Becki Gray	100 Cushman Ste 210 Fbks AK 9970
	Roger C Burggraf	830 Sheep Creek Rd Fbks, AK 99709-81
	Frank L. Saunders	1115 Hayes Ave. Fairbanks, AK 99709
	MARGUERITE SAUNDERS	1115 HAYES AVE FAIRBANKS, AK 99709
	STEVE McGRATH	1671 020 JOHN TRAIL FBX, AK 99709
	Robert M. Loeffler	2543 Brooke Dr Anch AK 99517
	Mike Roberts	AK 82184 FBKS AK 99708
	Jon Kraths	BOX 1504 KODIAK
	DOUGLAS P. BUCKLEY	PO. Box 81224, FAI 99708
	S. BANDOPADHYAY	4018 DUNLAP AVE FBKS AK 997
	Milton A. Wiltse	719 De Paul Dr., Fairbanks AK 9970

Alaska Miners Association Petition, page 1 of 2.

Signature	Printed Name	Address
Gordon E Depue	GORDON E. DEPUE	P.O. BOX 70531 FBKS. AK. 99707
Mick Manns	MICK MANNS	PARADISE VALLEY BETTIES AK 99726
[illegible]	Curtis T. F[illegible]	POB 74261 F[illegible] AK 99707
F. Lynn Blystone	F. LYNN BLYSTONE	MILE POST 295 RICHARDSON HWY
[illegible]	William R. Jeffress	389 Shannon Dr, Fairbanks, AK 99701
[illegible]	Stephen A. Long	489 Snowy Owl Ln, Fairbanks, AK 99712
Karl Hanneman	Karl Hanneman	P.O. Box 10664, Fairbanks, AK 99710
[illegible]	Richard A. Hughes	316 Juneau Ave, Fairbanks, AK 99701
[illegible]	JAMES H. JOHNSON	121 TRINIDAD DRIVE, FAIRBANKS, AK 99709-29[illegible]
[illegible]	MARY A. NORDALE	100 CUSHMAN, STE 311 FAIRBANK 997[illegible]

Alaska Miners Association Petition, page 1 of 2.

My Comments on the Draft Environmental Impact Statement for the Squirrel River Wild and Scenic River Study

The BLM needs your comments on the Squirrel River Wild and Scenic River Study, particularly any information you have that would correct errors or omissions in the description of the affected environment or the impacts to it as stated in the Draft EIS. Send this form or a letter to the address on the back by **April 28, 1998.** You may also make comments by email to: swill@ak.blm.gov.

Privacy Note: Comments, including names and street addresses of respondents, will be available for public review at the Fairbanks BLM office during regular business hours (7:45 a.m. to 4:30 p.m. Monday through Friday, except holidays) and may be published as part of the Final Environmental Impact Statement. You may request confidentiality. If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, please check the appropriate box below. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

Your input is very important, because the BLM wants to be sure everyone has a voice in the decision.

☐ **It is OK to release my name and street address to the public with these comments.**

☒ **I do not want my name and street address released to the public with these comments.**

3.5.2 Mineral occurrences & Historic Claim Locations. 1

THE AREA CONTAINS GREEN STONE BELTS that host lode gold and other metamorphosed, Volcanic-dominated terranes. THIS CLASS OF DEPOSIT accounts for a significant proportion of the world's gold production. Our inclusion studies also shows some kimberlite & orangeite. THE AREA HOST A LOT OF COMCO PYRITE, a good candidate FOR A "CATODE" TYPE OF MINING OPERATION. The "mesothermal gold deposits" can host a conventional mine, BOTH SURFACE AND UNDERGROUND. THE AREA ALSO HOSTS A LOT OF MINERALS THAT CAN Produce "NANOPHASE" MATERIALS. WITH JUST A "CATODE" AND A CONVENTIONAL mine, 1000 Jobs, 24 hrs. perday. NOT COUNTING THE OUT LYING COMMUNITIES that would create jobs due to influx of monitary funds. FOR MORE INFORMATION See "GREENSTONE GOLD AND CRUSTAL EVOLUTION" NUNA Conference Volume by F. Robert

Name (please print) [redacted] Date: 4-8-98

Street address or P.O. Box [redacted]

City, State, Zip Code [redacted]

I represent [redacted]

☐ I want to be removed from the Squirrel River mailing list.

Unattributed comment, page 1 of 1.

the Squirrel River Wild and Scenic River Study

The BLM needs your comments on the Squirrel River Wild and Scenic River Study, particularly any information you have that would correct errors or omissions in the description of the affected environment or the impacts to it as stated in the Draft EIS. Send this form or a letter to the address on the back by **April 28, 1998.** You may also make comments by email to: swill@ak.blm.gov.

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Your input is very important, because the BLM wants to be sure everyone has a voice in the decision.

☐ **It is OK to release my name and street address to the public with these comments.**

☒ **I do not want my name and street address released to the public with these comments.**

I Support the Agency's preferred Alternative of Non-Designation.

RECEIVED
BLM NDD
98 APR 22 AM 9:33
FAIRBANKS, AK

Name (please print) [redacted] Date: 4/20/98
Street address or P.O. Box
City, State, Zip Code

I represent SELF

☐ I want to be removed from the Squirrel River mailing list.

Unattributed comment, page 1 of 1.

My Comments on the Draft Environmental Impact Statement for the Squirrel River Wild and Scenic River Study

The BLM needs your comments on the Squirrel River Wild and Scenic River Study, particularly any information you have that would correct errors or omissions in the description of the affected environment or the impacts to it as stated in the Draft EIS. Send this form or a letter to the address on the back by **April 28, 1998.** You may also make comments by email to: swill@ak.blm.gov.

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Your input is very important, because the BLM wants to be sure everyone has a voice in the decision.

☐ **It is OK to release my name and street address to the public with these comments.**

☒ **I do not want my name and street address released to the public with these comments.**

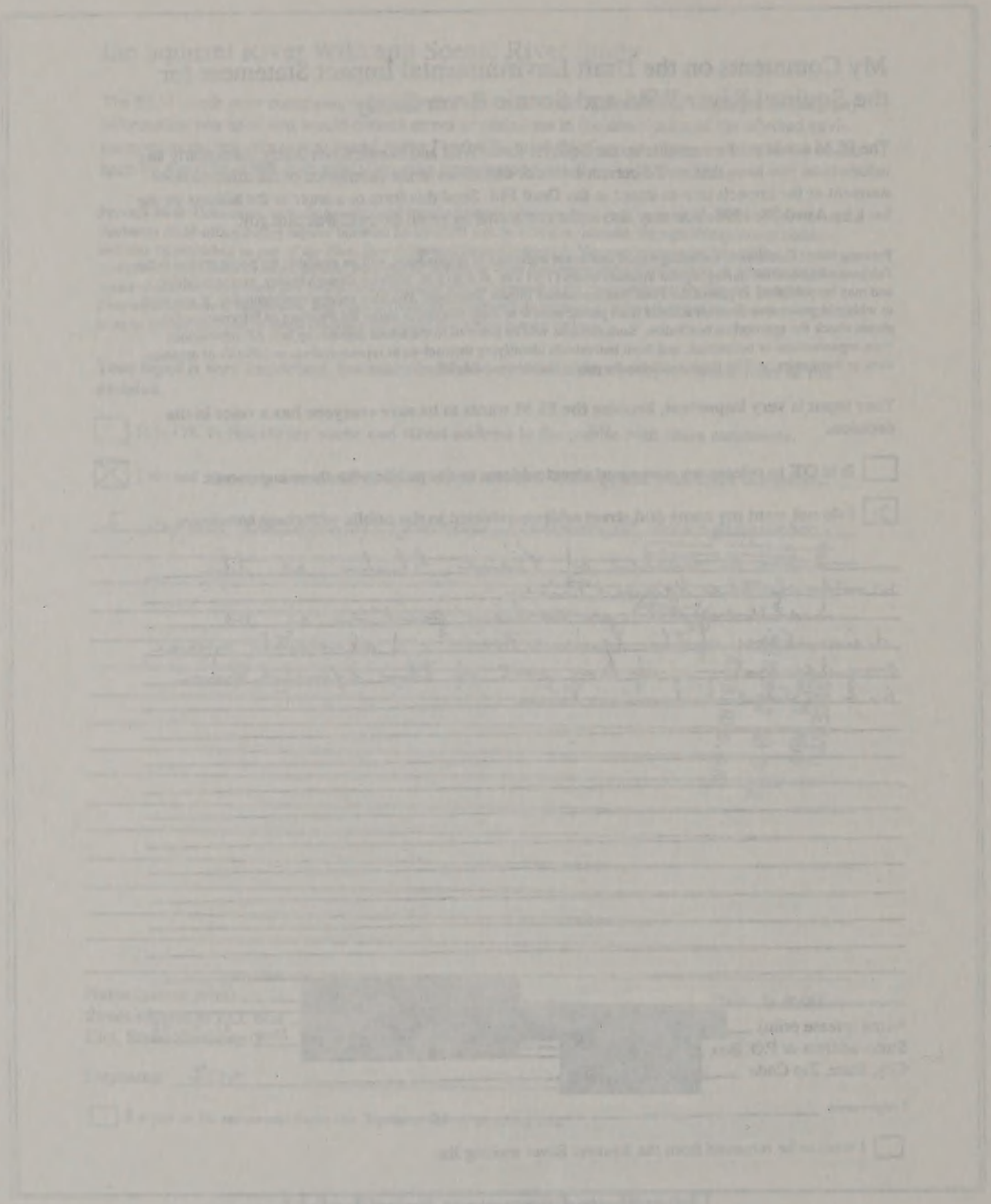
I am a resident of Kiana Alaska at the mouth of the Squirrel River.
I still support our earlier position of no designation of the Squirrel River. I adamantly oppose any designation of any part of the Squirrel River as a Wild and Scenic River.

Name (please print) [redacted] Date: 4-9-98
Street address or P.O. Box [redacted]
City, State, Zip Code [redacted]

I represent _____

☐ I want to be removed from the Squirrel River mailing list.

Unattributed comment, page 1 of 1.



Appendix A

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ANILCA SECTION 810 EVALUATION AND FINDING
Northern District, Fairbanks, Alaska

==========

AGENCY'S PREFERRED ALTERNATIVE: No action. Under the agency's preferred alternative, BLM would recommend that the Squirrel River not become part of the national wild and scenic rivers system, Congress would take no further action. Three alternatives to this are addressed collectively in this Section 810 Evaluation and Finding: 1) designation of the corridor in the withdrawal as scenic (Alternative A), 2) designation of the upper corridor in the withdrawal as wild and the lower corridor in the withdrawal as scenic (Alternative C), and 3) designation of the Squirrel River and its tributaries as wild (Alternative B). Expected impacts to subsistence did not differ substantially between these three designation alternatives and therefore, they are evaluated together collectively and compared to the no action alternative. None of the four alternatives is expected to result in significant impacts to subsistence resources.

I. EFFECT ON SUBSISTENCE USES AND NEEDS

A. FISHERIES

Background summary: The fisheries resource of the Squirrel River includes populations of 13 fish species, including three anadramous salmon species, Arctic grayling, Dolly varden, burbot, Northern pike, and whitefish. Chum salmon is the most numerous and most important species economically because it contributes to subsistence fishing on the lower Squirrel and Kobuk Rivers and to the Kotzebue

Sound commercial fishery. Alaska Department of Fish and Game aerial escapement data show that the Squirrel River is one of the most significant producers of chum salmon in the Kobuk River drainage. Kiana and Noorvik are the two villages located on the Kobuk River below the confluence with the Squirrel that harvest salmon produced in the Squirrel River.

Salmon represent 18.4% of the overall subsistence harvest of Kotzebue, a coastal community, representing the third most important resource after caribou and bearded seal [16]; and presumably, salmon may represent an even larger portion of Kiana residents' harvest. Kiana residents harvest fish primarily on the lower Squirrel River and Kobuk River on Native lands downstream of the proposed corridor; however, there are reportedly several fish camps associated with Native allotments within the corridor as well.

1.) Expected reduction in harvestable resources:

Alternatives proposing designation: The Squirrel River as a component of the Wild and Scenic Rivers System is expected to have a beneficial impact on harvestable fisheries resources by discouraging extensive development within the corridor, which would serve to protect riparian vegetation, bank structure, and water quality that benefit fish. Potential development activities that could occur within the Squirrel River watershed include road construction, gravel material removal associated with road construction, and mining; however, these development scenarios are considered very tentative in the reasonably foreseeable future, given current economic trends. Designation would not preclude road construction, but such development would be permitted within the corridor only to the extent that it does not impact the outstandingly remarkable river values, including fish. Designation would continue the Public Land Order 5179 withdrawal which closes lands within the withdrawal to mineral entry, mineral leasing, and mineral material disposal.

Designation may result in increased recreational use of the river, which subsequently may lead to higher fish harvest and create conflicts with local subsistence users. However, observations by BLM specialists indicate that current recreational users do not make substantial use of fish during their river float trips. The typical recreational visitors appear to practice catch and release sport fishing, with some limited harvest of a few Arctic grayling and Dolly varden for fresh food. Salmon are not currently targeted by recreational fishers in the Squirrel River. If increased sport harvest exceeds a species' sustainable yield, management actions would be

implemented to mitigate the impact and restore the affected fish population to harvestable levels. Recreational floaters will also be informed as to the location of Native allotments and private lands so as to minimize direct conflicts between floaters and local subsistence users. Given the potential for slight increases in recreational fishing, the limited harvest is not expected to result in a measurable reduction in subsistence fisheries resources.

Alternative D: Under this alternative, which would result in no designation, the state would be able to proceed with road construction on those lands selected within the Squirrel River watershed as identified in their transportation plans. Road construction and associated gravel material removal could impact fisheries resources and their habitat. Standard mitigation measures stipulated by state regulatory agencies attempt to minimize reductions in fish numbers, and can provide for habitat enhancement by properly designing gravel pits. However, transportation development is considered very tentative in the reasonably foreseeable future, given current economic trends.

If the Squirrel River were not designated, PLOs 5179 and 6477 would still remain in effect on those federal public lands that were not state-selected, thus continuing the closure to all forms of appropriation and mineral leasing within the corridor (except state selections). Alternative D is not expected to adversely impact the abundance of subsistence fisheries resources.

2.) Expected reduction in availability of resources caused by alteration in distribution, migration, or location:

Alternatives proposing designation: These alternatives may result in increased recreational use on the river, which could potentially lead to minor degradation of riparian habitat from trampling riparian vegetation and altering streambank structure at specific sites favored for camping, aircraft landing strips, and boat put-in/take-outs. Riparian habitat degradation could alter the distribution and location of fish by reducing shade, cover, and water quality which are characteristics of stable riparian habitats; however, such impacts would likely affect only small numbers of fish that inhabit those portions of the river at heavily used sites and is not expected to impact the overall fisheries resource of the Squirrel River. Management actions would be implemented to control recreation impacts on riparian habitat, such as restricting use at heavily used sites where measurable disturbance has occurred. Therefore, designation is not expected to adversely impact the availability of subsistence fisheries resources.

Alternative D: Under this alternative, which would result in no designation, the state would be able to proceed with road construction on those lands selected within the Squirrel River watershed as identified in their transportation plans. Road construction and associated gravel material removal could impact fisheries resources and their habitat. Standard mitigation measures stipulated by state regulatory agencies attempt to minimize disruption of fish migration, and can provide for habitat enhancement by properly designing gravel pits. However, transportation development is considered very tentative in the reasonably foreseeable future, given current economic trends. Alternative D is not expected to adversely impact the availability of subsistence fisheries resources.

B. WILDLIFE

Background summary: Subsistence wildlife resources in the Squirrel River study area include caribou, moose, grizzly bear, Dall sheep, wolf, various furbearers, small game and waterfowl [15, 16, 25]. The diverse habitats in the Squirrel River watershed provide food and cover requirements to both resident and migratory species that are harvested by local residents for subsistence purposes. Caribou is the most important source of red meat and second only to fish as a major subsistence resource of inland villages. Caribou contributed the greatest proportion (24.4% pounds harvested) to the overall harvest of Kotzebue residents in 1986, followed by bearded seal (19.0%) and salmon (18.4%) [16]. Local users of the Squirrel River come from Kiana, Kotzebue, and Noorvik, and potentially from other communities in the region [30, 43, 16]. The most intensive subsistence activity is believed to be concentrated on lands conveyed or selected by the Native village corporation outside of the proposed designated corridor. Subsistence hunting and trapping also likely occurs in areas associated with Native allotments within the corridor. Subsistence activities were a key factor in selecting lands by Native individuals and corporations, and Native allotments were typically claimed based on a family's use of a site for camps and related activities [30, 2].

1.) Expected reduction in harvestable resources:

Alternatives recommending designation: Designation may result in increased recreational use of the Squirrel River; which consequently, may result in an increased number of bear encounters with recreational visitors. As many as one or two bears annually could potentially be killed in defense of life or property by recreational visitors. Human-bear encounters can be minimized through public education about proper camping ethics. Extrapolated data suggest that Kiana res-

idents may harvest two to three bears annually [25]; however, a slight increase in the number of bears killed in defense by visitors is not expected to affect the subsistence harvest of bears. Increased summer recreational use of the Squirrel River is not expected to otherwise reduce the number of animals available for subsistence harvest.

The number of sport hunters visiting the Squirrel River during fall for hunting moose, caribou, and bear are concentrated during September and increased sport hunting pressure has already been observed in the Squirrel River without designation. The current increase is likely a result of non-local and non-resident sport hunters seeking quality hunting opportunities in reasonably accessible remote areas that have abundant populations of "trophy" game animals. The Squirrel River provides relatively easy access by light fixed-wing aircraft or boat from Kotzebue and Kiana, and game populations are currently healthy. Other factors may include increasing restrictions on sport hunting and aircraft access in other areas of the region, which may be pushing hunting pressure into new areas such as the Squirrel River that were comparatively unexploited in previous years. Therefore, sport hunting activity is expected to increase in the Squirrel River regardless of designation. Under Title VIII of ANILCA, the Federal Subsistence Board would be able to manage the wildlife populations on federal public lands in the Squirrel River corridor to allow for a rural preference, and therefore provide harvest strategies for minimizing competition for resources between subsistence and sport hunters on federal public lands.

Designation of the Squirrel River as a component of the national wild and scenic rivers system may have a beneficial impact on wildlife resources by discouraging or prohibiting developments such as road construction and mining within the corridor; and subsequently, maintaining healthy wildlife populations and habitats in a relatively undisturbed ecosystem.

Alternative D: Under this alternative, which would result in no designation, the study withdrawal would expire and state selections would fall in place and become valid. Under the current administrative procedures for implementing Title VIII of ANILCA, state selected lands are not considered "federal public lands" by definition, and thus are not subject to the provisions of Title VIII which provide a rural preference for the subsistence harvest of wildlife. Therefore, alternative D may adversely impact subsistence uses and needs by restricting the application of Title VIII along the Squirrel River, which is used as a travel corridor to access

harvestable subsistence resources. Hunting for moose, caribou and waterfowl and furbearer trapping occurs primarily by boat or snowmachine along the river corridor.

As mentioned above, fall sport hunting has been on the increase in recent years even without special designation. This increase in recreational use is expected to continue to occur in the region even if the river is not designated. Without the rural preference on federal public lands afforded under ANILCA Title VIII, local residents would need to rely on state game managers to manage wildlife harvests and minimize potential competition for resources between local subsistence hunters and non-local sport hunters.

Under alternative D, the state would be able to proceed with road construction on those lands selected within the Squirrel River watershed as identified in their transportation plans. Road construction could result in increased hunter access, resulting in increased harvest or displacement of animals near the road due to traffic, and also increase competition between hunters. However, transportation development is considered very tentative in the reasonably foreseeable future, given current economic trends. Alternative D is not expected to significantly impact the abundance of subsistence wildlife resources.

2.) Expected reduction in availability of resources caused by alteration in distribution, migration, or location:

Alternatives proposing designation: Designation of the Squirrel River as a component of the Wild and Scenic Rivers System is not expected to reduce the availability of wildlife resources for subsistence users. Recreational use of the river for floating may increase as a result of designation, but such use is expected to be concentrated during the summer months which should not conflict with subsistence hunting activities in the fall. As mentioned above, sport hunting in September is currently rising in the Squirrel River without designation. Local residents have expressed a concern regarding the impacts of low-flying aircraft on the caribou migration, which may affect the availability of caribou for their harvest (see further discussion in Chapter 3, Affected Environment, Subsistence). This issue may need further study to substantiate whether such impacts are occurring in the Squirrel River; and subsequently, appropriate management actions could be implemented. However, it is emphasized that this potential impact from sport hunting activities on the caribou migration could occur regardless of designation, based on the current rising trends in sport hunting use of the Squirrel River.

The proposal to designate the Squirrel River as a component of the national wild and scenic rivers system could have a beneficial impact on wildlife resources by discouraging or prohibiting developments such as road construction and mining within the corridor. Construction of a road and subsequent traffic would likely alter the migration route of the Western Arctic caribou herd, and may displace wildlife by damaging habitat and increasing human disturbance. However, such development scenarios are considered very tentative in the reasonably foreseeable future, given current economic trends.

Alternative D: Under this alternative, which would result in no designation, the state would be able to proceed with road construction on those lands selected within the Squirrel River watershed as identified in their transportation plans. Road construction and associated gravel material removal could impact the availability of wildlife resources by altering distribution or migration or by removing portions of crucial habitat. Individual animals may be displaced due to disturbance from human activity and noise. Bands of migrating caribou may be displaced around areas of construction. Road construction could result in increased hunter access, resulting in increased harvest or displacement of animals near the road due to traffic. However, transportation development is considered very tentative in the reasonably foreseeable future, given current economic trends. Alternative D is not expected to significantly impact the availability of subsistence wildlife resources.

C. OTHER RESOURCES

Background summary: Local rural residents use berry and green plant resources as a supplement to their primary diet of fish and meat. While berries and plants do not constitute a substantial part of the overall subsistence harvest in terms of pounds, they do provide important nutrition and diversity to their diet [16]. Commonly harvested berries include salmonberries (cloudberries), blueberries, lowbush cranberries, and crowberries (blackberries). Green plants harvested for subsistence purposes include sourdock, rhubarb, Labrador tea, and willow leaves [16]. Other subsistence resources harvested in the Squirrel River include white spruce and paper birch, used primarily for firewood, houselogs, and fish drying racks. Drinking water is another important resource available in the Squirrel River for local use. The subsistence harvest of berries, green plants, and firewood is believed to occur primarily on Native allotments and Native village corporation lands along the lower Squirrel River outside of the proposed designated corridor. Two Kotzebue residents have obtained woodcutting permits for harvesting trees

for houselogs and firewood in the Squirrel River watershed (outside of the proposed corridor) in recent years.

1.) Expected reduction in harvestable resources:

Alternatives proposing designation: Increased visitation along the Squirrel River as a result of designation may result in a slight but negligible reduction in plant resources, such as berries, green plants, and firewood. Recreational visitors probably harvest a small amount of berries for personal consumption to supplement their camp food supplies. Visitors to the Squirrel River will be encouraged to use dead and down wood for fires. Users will also be advised as to the location of Native allotments within the corridor and private lands along the lower river near Kiana to minimize conflicts between local residents and visitors. Increased visitation is not expected to result in a measurable reduction of harvestable vegetation resources.

Alternative D: Under this alternative, which would result in no designation, the state would be able to proceed with road construction on those lands selected within the Squirrel River watershed as identified in their transportation plans. Road construction and associated gravel material removal could impact vegetation and water resources. Stipulations would likely be applied to minimize impacts to water quality and reduce the amount of disturbed acreage. Road construction would still result in the removal of vegetation along the road itself. However, such development is considered very tentative in the reasonably foreseeable future, given current economic trends.

2.) Expected reduction in availability of resources caused by alteration in distribution, migration, or location:

Alternatives proposing designation: Designation of the Squirrel River as a component of the national wild and scenic rivers system is not expected to alter the distribution or location of harvestable vegetation resources. Designation as wild or scenic may have a beneficial impact on vegetative resources and water by discouraging or prohibiting developments within the corridor that could impact vegetation and water resources.

Alternative D: Under this alternative, which would result in no designation, the state would be able to proceed with road construction on those lands selected within the Squirrel River watershed as identified in their transportation plans.

Road construction would enhance access within the corridor for harvesting greens, berries, and wood. Dust from traffic along the road would impact vegetation adjacent to the road. Dust layers may make vegetation undesirable for harvesting near the road; however, dust shadows also result in early green-up of vegetation during spring, which may increase the availability of certain vegetation species. However, such development is considered very tentative in the reasonably foreseeable future, given current economic trends.

D. ACCESS

Does the proposed action create any legal or physical barriers that would limit harvester access to subsistence resources?

Alternatives proposing designation: Designation of the Squirrel River as a component of the national wild and scenic rivers system will not create any physical or legal barriers to subsistence harvester access. Motorized access by boat, airplane, and snowmachine is allowed in wild and scenic river corridors in Alaska under provisions of the Alaska National Interest Lands Conservation Act, which amended the Wild and Scenic Rivers Act, as long as such activities do not adversely impact the outstandingly remarkable river values. Access to and use of private land (e.g., cabin construction) on Native allotments within the corridor will continue to be allowed under designation. Federal public lands within the designated corridor would be subject to the provisions of Title VIII of ANILCA, which provides a rural preference for the subsistence harvest of fish and game. In the case where harvest of fish or wildlife must be restricted to maintain viable populations, Federally qualified subsistence users (rural residents) would have priority for harvest over non-rural residents. The harvest of trees for houselogs and firewood will continue to be allowed under designation.

Alternative D: Alternative D, which would result in no designation, would not create legal or physical barriers that would limit harvester access to subsistence resources. Under this alternative, the state would be able to proceed with road construction on those lands selected within the Squirrel River watershed as identified in their transportation plans. Road construction would enhance harvester access, but may also increase potential competition between local and non-local hunters. However, such development is considered very tentative in the reasonably foreseeable future, given current economic trends. Motorized access by boat, airplane, and snowmachine would continue to be allowed on both state and federally administered portions of the corridor. The harvest of trees for houselogs and

firewood will continue to be allowed on remaining federal public lands.

II. AVAILABILITY OF OTHER LANDS

Are other lands available that are suitable for the proposed action, are available in the proposed timeframe, in an appropriate ownership, and not designated for other uses that would preclude the proposed action?

There are no other lands available in the area that are substitutable for designation. The Squirrel River was identified by Congress in the Alaska National Interest Lands Conservation Act for study as a possible component of the national wild and scenic rivers system. Subsequent studies determined that the Squirrel River was eligible for potential designation as a Wild and Scenic River (see Chapter 1 for further discussion).

III. EVALUATION OF OTHER ALTERNATIVES

Are there other alternatives that would reduce or eliminate the proposed action from lands needed for subsistence purposes?

Three designation alternatives were evaluated in the environmental impact statement, and they are addressed collectively in this Section 810 Evaluation and Finding: 1) designation of the corridor in the withdrawal as scenic (Alternative A), 2) designation of the upper corridor in the withdrawal as wild and the lower corridor in the withdrawal as scenic (Alternative C), and 3) designation of the Squirrel River and its tributaries as wild (Alternative B). Expected impacts to subsistence do not differ substantially between these three designation alternatives. A no action alternative (Alternative D), which would result in no designation, was also analyzed in the environmental impact statement.

Potential impacts to subsistence resources may be greater under the no action alternative as compared to the three designation alternatives, due to the greater potential for road construction within the corridor on state-selected lands. However, the development of a transportation corridor in the Squirrel River watershed is considered to be very tentative in the reasonably foreseeable future, given current economic trends in Alaska. Additionally, while provisions for rural preference under ANILCA Title VIII would be applicable to less acreage under the no action alternative, it is anticipated that state and federal managers would cooperate to develop effective harvest strategies to maintain sustainable wildlife populations and minimize competition between local subsistence and non-local sport hunters

on both state and federally managed lands within the Squirrel River watershed. Therefore, none of the potential impacts expected under any alternatives is expected to significantly affect the abundance or availability of harvestable resources used for subsistence.

FINDING

[XX] This evaluation concludes that the four alternatives analyzed will not result in a significant restriction of subsistence uses and needs.

[ ] This evaluation concludes that the proposed action will result in a significant restriction of subsistence uses and needs.

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